

THE CULTIVATOR.

THIRD

To Improve the Soil and the Mind.

SERIES.

VOL. II.

ALBANY, APRIL, 1854.

No. IV.

Letters on British Agriculture—XI.

ON DEEPENING THE SOIL.

AMHERST, January 16, 1854.

L. TUCKER, Esq.—When speaking of the *Field Culture* of English farmers, I stated that their theory, with regard to deep cultivation, is in advance of their practice. By this I meant no reproach to them as a class.

It would be strange, if the leading minds of a great industrial interest should not assure themselves well of the truth of a theory, before they reduce it to practice; and it would be stranger still, if the mass of their brethren, in a country where every thing is conservative, should not be slow to imitate *new things*, even when proved to be beneficial. These considerations sufficiently explain the slight discrepancy, of which I have spoken, between talk and works.

But what is the prevailing theory of British farmers, with regard to deep cultivation? and what proofs are there of its soundness? Ought that theory to be practiced in that country and in this?

1. The prevailing theory of British farmers is, that the ground, when no manifest reason for the contrary exists, should be loosened, not merely from three to five inches, but from thirteen to twenty. Some would advocate trenching with the spade. The effect of this would be to mix the upper and lower soil nearly equally together. If by possibility this course might be judicious on any of their soils, where produce is dear, and where labor is worth but from 1s. 6d. to 2s. 6d. a day, without board, it would by no means follow that it would be wise with us, where labor is dearer and produce cheaper.

Others would advocate trench plowing, to a depth of 13, 15 or 17 inches, the effect of which would be partly to mix, but mainly to invert the soil. To do this at random would be little less than insane. What if the subsoil should be so charged with the sulphate or protoxide of iron, or with some other poisonous ingredient, that no crop could grow on it for two or three years? Or what if the subsoil were so porous, a mere bed of gravel, as sometimes (not often) happens, that the surface soil would run away through it? or what if the newly exposed earth were too cold for successful cultivation the first year? No man should exchange his

top soil for a deep subsoil, till he knows well what he gives and what he gets. If his top soil be unusually exhausted, and he knows by analysis or by a previous experiment, on a small scale, that his subsoil is fit for the immediate production of crops, it may then be wise to trench plow to almost any depth, but not otherwise.

This leads me to remark, that while some British farmers would recommend spade-trenching, and others trench-plowing, more, and, I think, a better class of farmers, would advocate plowing, so as to invert the soil from three to eight inches, according to its character, say, on ordinary lands, about six inches, and then following with a subsoil plow, stirring the soil, but not inverting it, to a depth of from 13 to 20 inches from the surface. This course has the advantage, 1st, of avoiding the danger of bringing up to the surface substances unfit for promoting the growth of plants; and, 2d, of putting the subsoil into a condition to be warmed, and deprived of hurtful ingredients, so as to be fit to be brought up at subsequent plowings. The idea is, that we should not bring up the subsoil at random, when it may prove less valuable than the soil before on the surface, and may very possibly ruin one, two or three crops before it becomes fit for use; but should first subject it to an ameliorating process, by loosening it, by giving air and water a free passage through it; and then should bring it up by degrees, watching the effect, and hastening the process more or less, as we see the effect to be favorable or otherwise.

Farmers in all countries, I suppose to be prudent, cautious, thinking men. The very nature of their employment would make them such. They are not aroused to improvements; but they wish to know whether proposed changes are improvements, or whether they are mere innovations, before they adopt them. For any important change, especially for one involving an increased expense of cultivation, they want a reasonable theory, one which approves itself to their judgment, *looks* as if it might be beneficial; and then they wish it tested by actual experiment. Now is the prevailing theory of British farmers, as I have stated it, reasonable? If you invert the soil to a depth of six inches this year and subsoil ten or twelve inches deeper; if then you increase the depth of the plowing an inch each year, and repeat the subsoiling once in two

or three years, till you get a fine tilth twelve or fifteen inches deep, is it reasonable to suppose that the crops will be increased? Is it reasonable or not, to suppose that twelve inches of soil, permeable by the plant roots, will give more nourishment to the crop than six? I think it is; and in this I am confident that practical farmers will agree with me. They will say, "the theory looks well; as a theory, we like it; it seems reasonable." They will admit, that, if the air, charged, as it always is, more or less, with watery vapor and with nutritious gases, both ready to be deposited for the benefit of plants, circulate deeply through the soil, a more equable distribution of warmth and moisture about the plant-roots will be promoted; that soils, by this free circulation of air, will sooner be weathered down to a desirable state of fineness; that the plant-growing ingredients, locked up in them, while in a coarse state, will more readily become available to growing crops; and that *probably* their productiveness will be increased by all these changes. But, as prudent men, they want something more than *probability*. Before adopting more expensive modes of culture, they want something approaching to certainty; and in this they are right.

2. What then are the proofs of the soundness of this theory? In the first place, we have seen that it is reasonable. To use a homely, but significant expression, "it stands to reason," that a deep pulverization of the soil will increase its productive powers. In the second place, we have the testimony of the most scientific men, that such ought to be the effect, according to the well known laws of nature. Sir Humphrey Davy declares that "fertility is much connected with the power of soils to absorb moisture from air," and that "the power of a soil to absorb moisture, by attraction, depends, in a great measure, upon the state of division of its parts," upon "its being so loose and light as to be freely permeable to the atmosphere." In the third place, we have, what is after all the most reliable—the undivided testimony of practical men—men who have themselves made the experiment of deeply pulverizing the soil. The system, which I would earnestly recommend to farmers of this country, with exceptions however to be named hereafter, is sometimes called Dean-Stonozing, from its being first adopted by Mr. Smith, of Dean Stone, in Sterlingshire, Scotland. I cannot better describe it, than in the words of Cuthbert W. Johnson. He says: "By this system, by means of a subsoil plow, of which there are several kinds, the subsoil, or under crust of the earth, is merely broken and pulverized, say, to a depth of from 14 to 20 inches, without being brought up to the surface, or mixed with the upper soil." Mr. Smith, the inventor of the system, when under examination before the Agricultural Committee of the House of Commons, in 1836, said: "The subsoil plow has been constructed on principles appearing to be best fitted to break up the subsoil completely, to a depth sufficient for thorough cultivation, say 14 to 16 inches, whilst the active soil is still retained on the surface—to be of the easiest

possible draft in reference to the depth of the furrow and firmness of the subsoil—to have strength and massive weight sufficient to penetrate the hardest stratum—to resist the shocks from fast stones—and to throw out all stones under 200 lbs. weight. All this has been accomplished and practically proved at Dean-stone over an extent of at least 200 acres of various soils; and also in various parts of England, Scotland and Ireland, during several seasons." This was now twenty years ago. Three years later, in 1839, at a meeting in Manchester, Mr. Smith said, that "the subsoil plow had not only been efficacious in England, Scotland and Ireland, but it had been introduced into the stubborn soil of the West Indies. He knew many instances of its success on light, gravelly and moory soils. He mentioned one instance, where it had been tried on such a soil in Perthshire, which subsequently produced one of the most splendid crops of barley ever grown in that country. He had also letters from farmers, who had tried the plow upon all bottoms, chalky, flinty, gravelly and moory bottoms, level soils, stiff clays, and almost every variety of subsoil found in these Islands, and without a single failure. He was frequently asked as to the propriety of using this plow before draining; and he would say, that if the ground was completely drained by nature, by its resting on a gravelly or sandy bottom, then the subsoil plow might be safely, and with advantage used at once; but if the bottom were clay, or any stiff, hard subsoil, that retained the moisture, then the subsoil plow must be withheld, till the land had been drained, because its application but made a greater space to hold water."

Such are Mr. Smith's views of the benefits of deep cultivation; and such his statement of the only exceptional case—that of lands not "completely drained" by nature and not artificially drained—an exception, with regard to which, I believe all agree that subsoiling is useless, or worse than useless, till the under water is disposed of. But lest any should believe that Mr. Smith, though a practical farmer, may possibly be more anxious to promote the sale of a particular plow, than to benefit his brother farmers, I will now adduce the testimony of men, who cannot by any possibility be suspected of any undue bias. Sir James Graham, after stating the results of experiments carefully conducted himself, showing an astonishing increase of fertility by deepening the soil with the subsoil plow, remarks: "I am quite satisfied, that the use of the subsoil plow is no less applicable to dry land, than to wet; on wet land, it insures and increases the operation of the drains; but, on all land, by loosening the substratum, it adds to the effective depth of the soil, whereby the nourishment to the plant is augmented; the root takes a deeper hold; and a more genial temperature is maintained below the surface, throughout the year. If I mistake not, it will be found that sandy loams, no less than stiff clays, profit by this system of subsoil plowing; and that on dry land, no less than on wet, where sterility is the consequence of a hard, hide-bound, hungry subsoil, Mr. Smith's treatment is cor-

rect, which breaks the crust without bringing it to the surface, until in time it has been mellowed by the natural effects of atmosphere and rain."

Mr. Viall, as reported by Cuthbert W. Johnson, stated that "He used the subsoil plow on a piece of light land for turneps, &c.—plowed it with the common plow 5 or 6 inches, and then with the subsoil plow 10 or 12 inches." He says further: "I then sowed it with barley; the crop was good, and it never faded away; it was a hot piece of land, and in dry weather some of it would burn, but after using the subsoil, it *did not*." He said he had also used it successfully on heavy clay land.

We have the very general, and so far as I know the uniform testimony of British farmers to the benefit of subsoiling on all lands not troubled with under water. There can be no doubt, that the deepening of a soil, by first stirring the under crust with the subsoil plow, and then bringing it up gradually with the common plow, greatly increases its capability.

3. It might not however be advisable for all who cultivate the ground to go into it at once. There is a question of time;—in our new states, where the surface soil is rich, and yet shows no symptoms of exhaustion, the time for deepening the cultivation may not have yet come. There is also a question of economy;—in regions far removed from a good market, it might not pay. Possibly there may be lands all over our country, which, owing to some peculiarity of the subsoil, it might be wise to "skim over," and to take from them what the surface will give. But with these exceptions, if they are to be admitted as such, of which I have some doubt, an opposite policy should prevail. Especially should it be so in those parts of the country where lands are dear and good markets are at hand. The soil should be mellowed, weathered, mixed, enriched by a free circulation of air, made fit for the roots of plants two or three times as deep as has been usual. It is true that the expense of plowing will be increased. But every other branch of the husbandry will be cheapened. Crops, on land thus cultivated, will require less seed and less manure; will be more easily kept clear of weeds; will grow more luxuriantly; be less liable to injury from sudden changes of temperature, and from protracted drouths or excessive rains. J. A. NASH.

Flax Culture.

Messrs. Editors—If the present duty on imported flax should escape reduction or abolition during the current session of Congress, there seems to be a good prospect that the growth of flax may soon become a more common, as well as a more profitable employment. Linens and other fabrics from flax, are getting into a more general use; and a market for flax is much more accessible than it was a few years ago. A company was some time ago organized at Fall River, Mass., for the purpose of spinning and weaving flax into the various fabrics which are manufactured from it. "The American Linen Manufacturing Company" has been in operation now about one year, and finds itself cramped

in its operations for the want of sufficient quantity of the raw material. To do something towards the supplying of this want a gentleman connected with the "American Linen Manufacturing Company" at Fall River has made a journey through some of the western states, with a view of inducing farmers to engage more extensively in the growth of flax, inasmuch as this company will supply a larger market than has heretofore existed in the United States. In a letter addressed to Governor Wright of Indiana, he says that the Am. Lin. Man. Co., expects to consume in the ensuing twelve months, over six hundred and fifty tons of flax fibre; and that when in full operation, it will consume annually over one thousand tons, or two millions of pounds. For want of a home supply the company has been obliged to import, during its first year, over one hundred tons, or two hundred thousand pounds, at an expense of over \$30,000.

It appears from the letter above referred to, that flax is cultivated to a considerable extent in Indiana and Ohio, but principally for the sake of seed. The stalk and its fibre are generally wasted and thrown away. Now that a home market is provided, the fibre will be saved, making the crops of flax in these states much more profitable, and leading to a much more extensive cultivation of it.

In regard to the profits of flax culture we glean the following chiefly from the letter of the agent of the Am. Lin. Man. Co., to which we have already referred. He states that if farmers would prepare their soil *well*, and would then sow two or two and a half bushels of seed, they would obtain twenty bushels of seed, and two to two and a half tons of flax straw to the acre. In Ohio and Indiana, for the want of proper preparation, an average of only ten bushels per acre is obtained, and about a ton or a little more of flax straw. This small yield is attributed to poor preparation of the soil, and to thin sowing. Every ton of straw, the agent says, yields three hundred pounds of flax fibre, so that those who were at due pains to raise the large crops above named would have, after rotting and scutching, about six hundred to six hundred and fifty pounds of marketable flax fibre. "For this fibre," says the agent in his letter to the governor of Indiana, "we would gladly contract for two years to come, at the rate of 12½ to 15 cents a pound (\$250 to \$300 per ton,) according to quality. It costs us this price, cash, to import it, and we should much prefer paying it to our own industry."

That these estimates, as to the yield of a flax crop, are not materially exaggerated, we infer from a communication from Mr. W. G. Edmundson, of Iowa, in the volume of the *Cultivator* for 1852. Mr. E. there states that he has grown flax quite extensively, finding little difficulty in growing it on a rich soil preceding wheat. He says that with proper cultivation there is no difficulty in raising from 15 to 20 bushels of seed, and from 300 to 400 lbs. of good clean scutched flax to the acre. The seed may generally be sold for \$1, or \$1.25, and at almost any distance from Fall River or other market, the fibre may be sold for at least 10 cents per lb. At these rates an acre will yield from \$45 to \$65; or, after making a large allowance for harvesting, rotting, scutching and cleaning, a clear profit of \$30 to \$50 per acre. This is fully better than raising wheat even at the present high prices.

As many will be induced by such considerations as the foregoing, to engage in raising crops of flax, you will oblige your readers, Messrs. Editors, by collecting and publishing all the *reliable* information you can procure. OBSERVER.

Tobacco Culture in the Northern States.

Messrs. EDITORS—During the last few years the weevil or wheat midge, (*Cecydomyia tritica*), has destroyed a large portion of the wheat crop in many parts of the wheat-growing district in western New-York. Wheat has been our great staple, but the midge annually spreads more and more, until finally the whole wheat district will probably be more or less infected by this pest. The wheat crop in Yates county, is at least one-third below an average yield. If we cannot make money raising wheat, perhaps other things may be grown, equally if not more profitable. Among these we rank tobacco, which, if rightly cultivated, will yield large profits. According to the census report of 1850, there were produced that year in the United States, 199,739,746 lbs. of tobacco, of which more than one-half was raised by Virginia and Kentucky. Ohio produced 10,454,449 lbs.; Connecticut, 1,267,644; Massachusetts, 138,346; Pennsylvania, 912,651; Illinois, 841,394; Indiana, 1,044,620; N. York, 83,189 lbs. Ohio produces more than all the other free states.

Connecticut has long grown tobacco. According to HENRY WATSON, in the Cultivator of 1844, about 500 tons are grown annually in the valley of the Connecticut, of which the town of East Windsor produces 300 tons. Mr. WATSON states that the yield of 1843 was less than usual, 1,500 lbs. being about the average per acre. They cultivate two varieties of the weed—the broad and narrow leaf. The latter is about two weeks the earliest. Their soil and climate seem to be peculiarly adapted to the production of a superior article, one pound in market being worth nearly as much as two pounds of Virginia or Kentucky tobacco. This variety is known as the "Connecticut Seed Leaf." In the Albany Cultivator of 1847, are some remarks of the editor on the cultivation of tobacco in the valley of the Connecticut river. He says—"To give a profitable crop there, requires pretty rich land—though the sandy soils manured at the rate of ten or twenty common two-horse or ox loads of manure per acre, produce well. With good management the usual yield is from 1,500 to 2,000 lbs. per acre of marketable tobacco, and an average return of \$100 to \$160 per acre. With the course that is there pursued, tobacco is by no means an injurious crop to the soil; on the contrary it is found to be an ameliorating one. The liberal manuring and clean cultivation necessary to bestow on the tobacco, fits the soil admirably for other crops; and it is found that wheat and other grains and grass flourish better where tobacco forms a part of the rotation. Messrs. LATHROP mentioned an instance of their having put \$36 worth of manure on an acre and an hundred rods of land which they planted with tobacco. They got a ton of tobacco which they sold for \$160. They sowed the same land to wheat and got 30 bushels. The next crop was hay, and gave at two cuttings four tons. The stalks of tobacco, after the leaves have been taken off, are scattered over the ground and plowed in, or placed in the manure heap to rot. It is known

that their ashes contain a large proportion of potash. We are told that where two or three stalks are left on grass ground their effect is very visible in the rank growth of the grass around."

The following estimate of the cost of raising one acre of tobacco, is taken from the New-York Farmer and Mechanic. It is estimated from several acres which averaged one ton per acre, which was sold at \$160 per ton:

Use of one acre of land one year,.....	\$15 00
10 loads of manure at \$2.50, carting and spreading	
\$5—one-half is.....	15 00
Plowing twice,.....	3 00
Harrowing and marking,.....	1 00
7,000 tobacco plants, at 50 cents,.....	3 50
Setting plants,.....	3 00
Hoeing four times,.....	5 00
Killing worms,.....	2 00
Topping, &c.,.....	4 00
Cutting and hanging up to dry,.....	4 00
Stripping from stalk and packing,.....	5 00
Rent of shed to dry in,.....	4 00
Freighting to Warehouse Point,.....	3 00

\$67 50

Deduct \$67.50 from \$160, leaves \$92.50 profit.

Mr. NELSON THOMPSON, the President of the Yates Co. Ag. Society, has cultivated tobacco during the last two years. The last year he had planted between 13 and 14 acres, of which he estimates the average yield between 1,800 and 2,000 lbs. per acre. His soil is good, and he manures highly. He estimates the value of his tobacco, at present prices, to be at least \$2,000. Admitting that one-half of that is for expenses, which is too large an estimate, he has a clear profit of at least over \$70 per acre.

The Northern States have millions of acres well adapted to the culture of tobacco, nor is there any probability of too many engaging in it. In Virginia there is said to be a large deficit in the yield during the last few years. Its use increases in spite of anti-tobacco societies. In proportion to the decrease in the use of ardent spirits, will that of tobacco increase, because very many will use something to excite or quiet the nerves.

Those who wish to obtain information concerning its culture, will find a detailed account of the method practiced in Connecticut, in the Albany Cultivator of 1844. Yours truly, S. B. BUCKLEY. West Dresden, Yates co., N. Y., Feb. 1, 1854.

Prices of Breadstuffs.

A gentleman, who spent a large portion of the past year in Europe, assures us that the reported deficiency of breadstuffs in Europe is *real*. It is larger than is generally believed. The aspect of European affairs warrants the belief, that the demand for American produce, already large, will increase rather than diminish, for months to come. In this state of things, immigration will be likely to equal, at least, any former examples. Between an increasing foreign demand and an augmented home market, the American farmer need have no fear but that he will be able to sell, at remunerating prices, all he can raise. Whatever surplus may have accumulated, in past years, is now in a fair way to be exhausted; and it may be set down

as a certainty that the produce of American farmers, for 1854, will sell, according as the season shall be fruitful or otherwise, at remarkably high, or at least, at remunerating prices. It is the *manifest destiny* of the farmers of this country, to feed thousands of Europeans in their own lands, and thousands more, who will come and eat their bread and meat on our shores; and as now is the time for them, if they have not already done it, to lay their plans for the coming season, would it not be well for them to take these things into account, and see in what way they can increase their productions above these of former years.

Experiments with Superphosphate of Lime.

MESSRS. EDITORS—Having been an old subscriber to your *Cultivator* from the year 1843 to 1850, and having recently subscribed again, including the numbers for last year, 1853, I find upon reading the number for May, that a correspondent who signs himself C. D. P., of Waterville, makes some inquiries of you in regard to the superphosphate of lime manufactured by "Professor" Mapes and Mr. De Burgh; and as you are unable to answer definitely as to the results to be obtained from its use, will you allow me, even at this late day, to state to your correspondent the results of my experiments of last year.

I have been a regular subscriber and a firm believer in Mapes' "Working Farmer," for the last three years, and thinking him honest, when he tells us that it is cheaper to buy his phosphate at \$50 per ton, than to have yard manure given us and cart it two miles to our farms, I bought about two tons last spring, a part from his agent, Mr. McCready, and the balance carted from his factory. Upon turning to my farm diary, I find that from the 26th to the 29th of March last, I sowed four acres to oats; the two acres comprising the upper parts is gently sloping to the south-east, and on one acre of that I applied 600 lbs. of Mapes' superphosphate, and on the other acre, 450 lbs. of guano, composted with plaster. All was then thoroughly harrowed and rolled in with the seed. The land was plowed 10 inches deep, and was in fine mellow condition; and moreover the season here was rather wet and favorable. Thus you see everything was in favor of the action of the superphosphate, (if it ever acts at all,) and I assure you I looked forward to at least one noble acre of oats. The balance of the field was limed with 100 bushels on one acre, and a part of the fourth had a heavy dressing of ashes, and a couple of lands were sown without anything.

Now for the result. From the time the field began to show a green covering, you could see a marked difference in favor of the guano, and none whatever in favor of the phosphate; and at different periods until harvest, I have shown it to friends visiting me, and as far as we could see the field, so far was the difference to be seen, that part guanoed being of a deep dark color, and from six inches to a foot higher than any other in the piece. A few handfuls having been scattered over the last open furrow, being a little left in

the bag, there was the same marked difference. The part dressed with the phosphate never showed the least difference from the lands left unmanured, and the lime and ashes gave a larger growth of straw and a much heavier crop of grain than the phosphate; in fact, the entire money paid for the phosphate was completely thrown away, as far as any increase of crop was concerned. To show you the result at harvest; we could not bind the oats grown on the phosphated acre, but the average length of the straw on the guanoed was over four feet by actual measure, and very heavily loaded with grain, giving, in the opinion of all who saw it, more than double over its phosphated neighbor; and this was the result at threshing time.

I also used it upon corn, at the rate of 800 lbs. per acre, and side by side with hog manure plowed under, the ground being plowed 12 inches deep by a team of horses and oxen together; and the result was more striking if possible than with the oats. There was at least double, both of corn and stalks, where the hog manure was applied; and being nearer the house than the oats, I had the pleasure of showing it to more of my neighbors and friends. Both pieces were planted on the 2d of June, and where we gathered good, long, sound and ripe ears, from the manured part, we only got a moderate crop of nubbins and hog corn, as the result of nearly 600 lbs. of superphosphate.

I also applied it to cabbages, tomatoes and early sweet corn, and I assure you, on my honor as a man, that investment of about \$100 in phosphate, including freight, cartage, &c., independent of spreading, has not benefited me \$10. And I can name at least six of my neighbors who will give similar testimony; in fact, a neighbor who is uncommonly well posted up in all that pertains to farming, boldly asserts that any man with \$10,000 over and above his farm, who strictly follows all the directions of the "Professor," will, at the end of five years, find himself minus all his cash; and I feel almost ready to endorse the assertion.

I would rather pay \$1.50 per load for good stable manure and haul it two miles, than give \$10 per ton for Mapes' phosphate and pay the freight or draw it from his factory. The fact is, we farmers do not want men who sit all day in their office or sanctum to give us instructions in farming, but men who have at some time of their lives worked upon the farm and entered into the details of all its operations; but these men the "Professor" calls, very contemptuously, "mere laborers," not scientific farmers. I have been to his farm at Newark many times, and never yet saw him outside of the office, all the farming operations being conducted under the direction of an intelligent foreman, whom I consider much the best practical and scientific farmer of the two.

Your inquirer will see by my experiments, that I applied the maximum instead of the minimum quantity of phosphate recommended by Mapes for field crops. I did so with a view to obtaining full results, and also to have the clover with which I seeded the oat ground, receive its share of benefit.

I can, if it were necessary, give you the name of a very scientific farmer, in my neighborhood, who last spring bought about a ton of Mapes' phosphate, and applied it to various crops of vegetables which he was raising for his family use, and he has assured us he could not see the slightest degree of increase during their growth or at the time of harvesting them; but from every load of good horse manure drawn from the village and properly applied, the good results and increase of crop were very apparent. I do not doubt the good effects of phosphate, when properly made and applied, under certain circumstances and conditions of soil and crop; but from my own experience and that of others, I *do doubt* the profit and expediency of its indiscriminate use under all circumstances, as is recommended by those interested in its manufacture and sale. And further, I know it is not pleasing to the subscribers of an agricultural paper, to have a large portion of its columns taken up with affidavits of the workmen engaged in manufacturing a manure in which its editor is more interested than in the real success of the paper. Yours truly, F. C. L. Rahway, N. J., Feb. 18, 1854.

How to procure Guano for a Wheat Crop.

How to procure guano for a wheat crop? Why, send the money to Longett & Griffing, of New-York, and you will receive guano in return if you so order it, the captious joker will say. Even so. But how obtain the money for *that* purpose, without trenching upon any extraneous source? "Why," says the joker, "the extra product of wheat will pay for the guano." Possibly it may, and more gain if it do. How to procure guano for a wheat crop? I will tell thee, gentle reader.

Instead of sun drying your land all summer in the fallow system, plow it crosswise in the first week of June and drag it without lapping, and sow, broadcast, from three to four bushels of Indian corn—and sweet garden corn if you can obtain the seed—and then cover it up with a gang plow or large cultivator. Take no further care till the last week of August, when you must mow down the corn fodder, tie it up in bundles and remove it to an adjoining field, for the purpose of clearing the ground for plowing, and set the bundles up in shocks, and as soon as cured, put it into large cocks, say a load to a cock and let it take a *sweet*. In a dry spell of weather open the cocks in the morning and cart to the barn in the afternoon, and stack it in the mow same as hay, and salt every two layers of bundles at the rate of a barrel of salt to five acres of fodder. Or if you like it better, stack it to the weather, in long, narrow stacks, in joints about ten feet long, and thatch it with straw, English fashion.

The fodder from one acre, when cured, will weigh from four to seven tons. Mr. ALPHEUS MORSE, of Eaton, told me at our county fair, that he had weighed half an acre of dry corn fodder, and its weight was three and a half tons, or seven tons to the acre. His farm, it must be borne in mind, is in a very high state of cultivation. This corn fodder is worth \$10 per ton when hay is worth \$7. Four tons at \$10 per ton =

\$40 per acre. Seed, \$3; mowing and binding, \$2; carting, \$1,50 = \$6,50. \$33,50 profit on the acre to buy guano with! The land is left perfectly clean and mellow, and there is no loss in the consumption of the fodder, for the cattle do not leave a sign of it in the manger.

For soiling milch cows in the dry months of August and September, corn fodder is a complete stop-gap to the cows drying up, an object aimed at by all practical men. Half an acre is amply sufficient for ten milch cows. Try it, brother farmers, and see how much money you have lost in your lifetime.

If these calculations be correct, what an immense amount of fodder is lost every year in New-York state alone; for it is well known that all soils suitable for wheat will grow corn fodder to perfection.

Who will profit from the fact, that one acre of corn fodder will buy two hundred weight of guano to the acre for six acres of land? Corn fodder will revolutionize farming in the northern states. JOHN R. CHAPMAN. Orchard Cottage, Oneida Lake, Madison co., N. Y.

Culture of the Potato.

A friend sends us the following, as what he believes the best means yet known for avoiding the potato disease:—

1. Be content with a medium crop, say 100 to 150 bushels to the acre, selecting land but moderately rich, and using no stimulating manure. The land should be a lightish loam, easily permeable by water; and it would be well if it had been treated with no stimulant, nitrogenous manure the preceding year.

2. Let the land be brought into fine tilth by means of the plow and harrow, to a depth of five or six inches, as early as may be in the spring. Furrow both ways, at a distance of three feet, letting the plow incline to the mould-board side, so as to give a broad, shallow furrow, of about three inches deep.

3. As manure for one acre, take 50 bushels of charcoal dust, or if this is not at hand, 50 bushels of dry, well cured peat, or if neither of these is conveniently to be had, 50 bushels of turf, piled up the summer previous and rotted down to a fine powder with a little lime; add 10 bushels of unleached ashes; 5 bushels of oyster shell lime, or common slaked lime, or leached ashes, whichever can be obtained with the least trouble; 2 bushels of plaster; 1 bushel of bone-dust; and 1 bushel of common salt; mix the whole thoroughly together, and throw it into the crossings, a little less than a pint in each, in that careless sort of way, which will cause it to spread itself over at least a square foot.

4. For seed, select sound potatoes of medium size or a little less, and plant one in a hill, and never more than one, if it be ever so small, without cutting. Plant as early as can be done with safety to the crop from spring frosts. Should the weather be wet after planting, shallow covering would be the best. If it should be dry, deep covering would be more favorable. It would be perhaps the safest, over such manure as I have prescribed, to cover the seed nearly three inches

deep, which would bring the top of the hill just about even with the average level of the field.

5. For the first hoeing, the harrow, or cultivator, might be run through both ways, and the plants should be weeded, but not killed, or at most but very little. Let the whole surface of the field be left very nearly level.

6. For the second hoeing, which should be very soon after the first, before the tops begin to leave, a similar course might be followed, except that broad, but rather low hills should be formed.

An acre so planted would have 4,840 hills, which would give, at only one quart to the hill, 151 bushels, worth, at 50 cents the bushel, \$75.50; at 40 cents, \$60.40; at 30 cents, \$45.30; at 20 cents, \$30.20; in which last case, it would hardly be a paying crop, but would give a profit, less or more, in each of the other cases.

Bone-Sickness in Cows.

AMHERST, (Mass.) February 4, 1854.

L. TUCKER, Esq.—In the Country Gentleman of the 2d instant, I perceive an inquiry by A. T. TUTTLE, of Enfield, to which I deem it important that a correct answer should be given, both for the gratification of that gentleman, and also as affording information important to all dairy farmers on old lands.

It appears that Mr. T.'s cows have a morbid, sickly appetite for old bones; that those most affected with the disease, gradually lose their flesh and become poor; that, although they eat well, they appear dumpish, stiff in the joints, weak across the backs, so much so that they can hardly move. Mr. T. has graphically described the symptoms of a disease to which milch cows, on old, worn out pastures, are always liable; but he has failed to give information respecting his land—whether it is old, or recently cleared, and if old, whether it has been long used for dairy purposes, all of which is important to an intelligent answer to his inquiries.

In the absence of positive information, I shall presume that his lands have been long used for dairy purposes. Indeed the single fact that his cows are thus affected affords strong, presumptive evidence that his lands, both mowing and pastures, but more especially the latter, are dairy-worn. If so, the bone-sickness of his cows is easily explained. The remedy also may be easily pointed out; and although its application may be somewhat expensive, yet the expense incurred will afford a paying investment. The *cause* of the disease, its *cure* as now existing, and the *prevention* of recurrence, are the points claiming our attention.

It should be borne in mind, that the cow creates nothing. It is true also that the grass creates nothing. Certain inorganic substances exist in the soil, among which are *phosphate of lime*, *potash*, *soda*, *common salt*, *gypsum*, &c. The grass cannot create these substances for itself. It can only draw them from the soil. If they exist abundantly in the soil, as in most newly cleared lands, those sweet, nutritious grasses, most valued by the farmer, will grow luxuriantly; but if the soil do not contain them, except in very minute

portions, as in old dairy farms, then those nutritious grasses will die out, and meagre, innutritious grasses will take their place. But it so happens, that the same substances which are essential to the sweet, nutritious grasses, constitute the essentials of milk. Of *phosphate of lime*, for instance, two ounces are required for the elaboration of each pail of milk in the mysterious organism of the cow; and several pounds are carried off in the bones of every calf sold from the farm. In process of time, this substance, which never exists but in small quantities, is exhausted. When no longer found in the soil, it cannot be in the grasses growing from that soil. But the cow cannot elaborate milk without it. Still there is in the organism of the cow an effort of nature to elaborate milk. The little phosphate contained in her food is all abstracted from her system in the composition of milk. None is left for that steady and constant renovation of her bones, which nature requires. Her bones are deprived of what is necessary to keep them in a sound, healthy, constantly renovated state. In other words, her bones are not fed with food convenient for them. *Phosphate of lime* is the proper food for bones, but this cow's bones have been cheated out of that bone-growing and bone renovating substance. She has the *bone-sickness*. The cause of this disease is explained in the *Progressive Farmer*, page 144, published by C. M. SAXTON, 152 Fulton-st., New-York. Never was a disease more appropriately named. It is called *bone-sickness* for two reasons: 1st, because it is really a disease of the bones, these organs having fallen into an abnormal, sickly state; and 2dly, because it is manifested by an unnatural, and, in some cases, an almost rabid craving for bones, so that the cows afflicted with it, as Mr. T. says, will run for a bone, as if a dog were after them. So much for the *cause*.

For the *cure*, the best prescription is, to remove the cows to a good pasture, in which are plenty of clover and other sweet grasses, if it be summer; and to feed them, if it be winter, on good, well cured hay from richly manured land. Such food will supply the necessities of the milk-giving animal, and will be likely to restore health. If a change of pasture could not be had, it would be well to soil the cows on grass cut from well manured mowing. It would also be well to give them, as Mr. T. says he did, bone dust, ashes and salt. The latter, of course, should always be within the reach of cows. The two former would tend to mitigate, and might cure the disease. If the three were placed separately, the instinct of the animals would be the best possible guide, which to take and which to reject; for I suppose that no animal would eat bone-dust, or ashes, or salt even, unless led to it by a real want of its nature.

Now for the *prevention*. This has been already intimated; for what would cure, would in this case be likely to prevent a recurrence of the disease. I believe cows never have the bone-sickness, if fed on rich, sweet pasturage, or on hay from well manured mow lands. But what shall be done with our old pastures

so poor that ten acres but keeps a cow, and that on grasses so innutritious that she needs after all bone-dust, ashes, salt and gypsum to keep her from sickness? Put these things on the land. A compost of 5 bushels of ashes unleached, 4 of oyster shell lime, 3 of cheap, agricultural salt, 2 of bone-dust and 1 of gypsum, to the acre, would prevent the *bone-sickness*, and more than pay the expense, in the increased productiveness of the land.

Now, Mr. Editor, if you approve of the foregoing, as an answer to Mr. T.'s inquiries, or if you believe it suggestive of anything that may be beneficial to the farmers of old dairy pastures, you are at liberty to use it as you please. Truly yours, J. A. NASH.

Farm Books—Good Suggestions.

There is one subject of interest to farmers, upon which, (though it be a little hackneyed,) I will even venture a few comments. This subject is none other than the oft proposed, yet seldom practiced, project of preparing, during the leisure time of winter, detailed plans for the year's campaign. The benefits of such practice have been often urged upon the attention of agriculturists; yet, to secure the adoption thereof, there will be needed "line upon line and precept upon precept." Plans upon which much thought has been expended, and which have been matured by reflection, possess as much superiority over the hastily concocted schemes, begotten by present necessity, as does ripened over the wind-fallen fruit.

All soils, whose fertility is not inexhaustable, require a judicious rotation of crops, in order to produce the most profit; that is, render to the tiller the largest quantum of pleasure, and increase the capacity for the production of food. Such a rotation requires reflection; a thorough system, and a forethought which shall reach a few years into the future. These requirements cannot be met by hurried calculations; and the plans hastily devised, will most frequently prove to be ill devised.

The necessity for forming calculations, when the time for *executing* them has arrived, leads straightway to confusion—greatly impairs the energy of execution; and makes the farmer a slave, with his work for a driver.

In view of these, and a variety of other considerations, I would say to you, friend farmer, procure a blank book of goodly size, in which, as a frontispiece, place an accurate map of your farm, marked off in lots and sections, regularly numbered and lettered. Thus fortified, devote the first page to lot no. 1; reflect upon its present condition, the manner of its cultivation, the character of the crops which it has produced, &c., &c., and after due deliberation, decide upon the crop which you wish it to bear. This done, study the capacities of the soil, and the requirements of the crop; bring to bear your whole fund of experience and stock of knowledge, otherwise acquired. Lay down a course of culture, including tillage, manuring and after cultivation, with all the concomitants: then calculate and affix the dates at which the various processes shall be performed. The next

page you will use to note down the proceedings and remarks thereupon; and the next leave blank for the purpose of chronicling the results at the end of the season, together with what comments your observation may prompt. Thus proceed through the farm, until every lot and section shall have been provided for.

The next labor will be to make out a time table, allotting a fixed time to every operation of the season, and a labor to every day. This accomplished, you will possess as complete a plan as ever Bonaparte drew of a campaign. It is true that the allotments of the time table will, of necessity, be varied a little as the season progresses, on account of the weather and unforeseen interruptions. Nevertheless it is a valuable general guide. You will now own a book of reference which will be of invaluable service, not only for the present year, but for every future one; as it will contain plans, results, facts and deductions, which will form a safe basis for practical improvements, and a sure start point for progress. J. G. K. *Dryden, N. Y.*

Pennsylvania State Ag. Society.

The annual meeting was held at Harrisburgh, Jan. 17, when the following officers were elected:

President—FREDERICK WATTS.

Vice-Presidents—Isaac B. Baxter, Joseph R. Ingersoll, James Owen, Algernon S. Roberts, Robert T. Potts, Abraham R. McIlvaine, William Staveland, James Everhart, John Strohm, John P. Rutherford, Amos Knapp, Geo. W. Woodward, Augustus Lukenbaugh, William Jessup, H. N. McAlister, Jacob S. Haldeman, William Hieser, John S. Issett, John McFarland, John H. Ewing, John Murdock, William Martin, sr., William Waugh, William Bigler, James Miles.

Additional Members of the Executive Committee—John S. Evans, A. O. Hieser, Isaac G. McKinley, William Bell, Simon Cameron.

Corresponding Secretary—A. L. Elwyn.

Chemist and Geologist—S. S. Haldeman.

Librarian—David Mumma, Jr.

Premiums were awarded on winter wheat, for 51½ bushels per acre on seven acres—for 158 bushels and 7 quarts corn per acre, and for 43½ bu. barley per acre.

The treasurer reported that the receipts for the past year exceeded the payments by \$6,058.64, which, with the profits of the previous years, gives the Society a fund of \$13,069.64.

Standard Weight of Grains.

MESSENGERS. EDITORS—Will you give a list of weights of grain, &c., as they are by law established. I see in the *Cultivator* for March last, page 97, a list of weights, in which Indian corn was set down at fifty-six pounds to the bushel. If that is the lawful weight for the bushel, I have been badly shaved, for I have sold sixty pounds for a bushel for some years. WM. F. POTTER.

The Standard Weight of Grains, according to the Revised Statutes of this state, is as follows:

	Legal weight.	Ordinary weight.
Wheat,	60 lbs.	55 to 65 lbs.
Rye,	56 "	56 to 56 "
Barley,	48 "	44 to 56 "
Oats,	32 "	28 to 44 "
Indian Corn,	56 "	50 to 62 "

We understand, however, that Indian corn is usually purchased in this market, and generally throughout the state, at the rate of *sixty* lbs. to the bushel, but that in the city of New-York the legal weight of 56 lbs. prevails among dealers. As the price in New-York for 56 lbs. regulates the price per bushel in all parts of the state, we can see no reason why the legal weight should not prevail throughout the state. The present custom, it appears to us, works great injustice to the farmer.

Culture of Buckwheat.

EDITORS COUNTRY GENTLEMAN—In my last I said something by way of calling your attention to the cultivation of buckwheat, which is getting to be, next to wheat, the most important crop in the state of New-York. I have deferred writing in the hope of obtaining some more digested information in relation to its culture, number of bushels per acre, amount raised in this town, &c. Not having in my possession any means of ascertaining these important facts, I must content myself with giving such general statements as come within my range of observation.

And first, by the Patent Office Report for 1851-2, you will see that the number of bushels grown in this state is 3,183,955, which is nearly as much as all the rest of the United States put together. Of this production, Albany county takes the lead, and Rensselaerville is the banner town. The average price per bushel is fifty cents for the last twenty years. The demand in general appears to be a little above the supply. The standard weight per bushel I understand has been established within a year or two at fifty pounds. You will perceive by this weight, that it is a more profitable grain to feed than oats, which weigh about 36 lbs. to the bushel. Many farmers adopt the practice of feeding the buckwheat and selling their oats in market.

The product per acre varies according to the quality of the soil, mode of culture, adaptedness of season, &c. It was formerly considered, compared with others, a somewhat uncertain crop, but the experience of some years past has satisfied me that it is not more uncertain than most other summer crops.

The time of sowing varies from about the 20th June to the 4th July. Some have sowed as early as the 10th June, and others as late as the 15th July. It sowed too early, it is liable to blast, and if sown too late, is liable to frost. The general principle appears to be to seed at about such a time as to bring the grain to such a state of maturity as not to be affected by the dry and parching winds that usually prevail before the autumnal equinox.

The mode of culture has varied considerable since my recollection. It was formerly the custom to reserve the poorest land for buckwheat. It was considered a great reproach to land to say it would produce "only buckwheat." The practice was to break up sward land early in the spring, and let it lie until about seeding time, and then cross-plow and seed. The practice now, among good farmers generally, is to sheep the fields intended for the crop as long as can be done before sowing, and plow but once.

I will here state, that I know of no section of country in which the business of farming is conducted more slovenly than it is among us. There are many exceptions to this general statement, but not enough to invalidate it as a general rule. The practice is altogether too general. The result must eventually prove ruinous. A young man will purchase a farm, and run in debt for a good share of the purchase money; grain

bears a good price, and he is anxious to be out of debt. The temptation to run the land is exceedingly strong. Hence many keep no more stock than will eat up the coarse fodder in the course of the winter, and then plow and sow almost the entire farm to oats and buckwheat—oats one year and buckwheat the next. I know land that has been subjected to this system of skinning for the last fifteen years, and compared with others the yield may be said to be good. What this land would produce, if occasionally seeded with clover and a suitable rotation practiced, I am unable to say. Some of our farmers have raised good corn, good wheat, good rye, &c. I believe that to a farmer of this town, (a neighbor of mine,) has recently been awarded the first premium on wheat and corn, and the second on rye, by the New-York State Ag. Society. I am exceedingly gratified to be able to state that a more careful and enlightened system of husbandry has begun to prevail in this as well as in the adjoining towns.

It is a money crop; as soon as threshed it will bring the fifty cents, mostly at the barn. The time is very short; 72 days from sowing to threshing, may be considered as the shortest time. There is but very little difference, however, between early and late sowed, as to the time of ripening.

As to manure. No crop will feel manure of any kind, or in any state, so quick as buckwheat. Barn-yard manure, whether green or rotted, ashes, lime, plaster, all seem to produce a wonderful effect when applied to this crop. Guano, so far as my knowledge extends, has not been tried, but I have no doubt that the effect would be a considerable per cent above that of any other manure, barn-yard manure not excepted.

The general impression formerly was that it was an exhausting crop. I have of late years been in the habit of observing pretty closely as to this opinion, and have recently conversed with some of our most intelligent and enterprising farmers in relation to this subject. The general opinion is that, compared with other crops, it is *not* exhausting. One gentleman in particular remarked to me recently, that it was his decided opinion that no crop we could grow, left the land in so good tilth as buckwheat. He remarked further as a reason, that the land was tilled at that season of the year when every green thing that was uprooted by the plow, was destroyed—that the growth of the grain was so rapid as wholly to smother and prevent the growth of grass or weeds of any description. I will remark here that in relation to my own experience, a good growth of buckwheat, followed by oats, and seeding heavily with clover, almost entirely eradicates the Canada thistle.

The remarks of your late correspondent in relation to raising corn after buckwheat, I am satisfied are entirely correct. I have never tried the experiment myself, and have never seen it tried in but two or three instances; and the results have uniformly been mainly as your correspondent describes as the result of his experiments. Some person or persons, years ago, must have tried these same experiments as your correspon-

dent; for I have always heard that corn after buckwheat would be a failure. Why it is so, is a fit question, it appears to me, for our agricultural chemists to settle.

As to the yield per acre, I cannot say with accuracy. I will hazard, however, this general statement, that the average number of bushels per acre is double the number of bushels of wheat per acre throughout the state. If this statement should be found to be correct, then I see no reason why our land in this Helderberg region, is not worth as much per acre as any land in the state, the advantages to market only excepted. I must defer any further remarks until I get leisure, or until some of my townsmen, better qualified than myself, shall take it up. G. W. DURANT *Rensselaerville, Feb. 16, 1854.*

Experiments with Guano, Superphosphates, &c.

L. TUCKER, Esq.—I have read your journal from month to month, hoping that I should find some reliable facts in relation to the use of guano and phosphate of lime, but as yet the statements of different persons and journals are so conflicting as to leave me in the dark. My experience is as follows:

Last spring I purchased a few bags of guano and fifty pounds of lime. Early in May I transplanted some cabbage plants and put lime in the hill. Having a little left in the field, I sowed it on the grass near by, and never saw nor heard more of it afterwards. My cabbages were eaten off by the worms, and that ground applied to other purposes.

My corn ground was broken up the fall previous. In the spring forty loads of manure to the acre were spread and plowed in. The guano was mixed with Plaster of Paris, one to two parts. My foreman was directed to put about one table spoonful in each hill, and cover two inches, and then plant the corn and cover the usual depth.

Six rows were selected, and treated as follows: First, two tea spoonfuls of guano; second, two tea spoonfuls of phosphate; third, guano and Paris; fourth, ashes; fifth, Paris; sixth, nothing. That part of the field planted first came up well, and the rest badly. This I attributed to there being but very little rain after the last was planted, and the guano was not dissolved; consequently the corn was burned. Of the six rows, all but that which had the guano in, came up well; and those were replanted, and after which all were treated alike.

Result.—The phosphate took the lead, and could be told a mile off, until it tasseled out, it being much larger and of a darker color than the rest. At harvest time each row was gathered separately. *Result*—No. 1, 125 lbs.—No. 2, 120—No. 3, 108—No. 4, 100—No. 5, 100—No. 6, 95. The phosphate was the dryest, and the worms had eaten the roots of Nos. 2, 3, 4, 5 and 6, badly.

Another small piece was planted with no other manure but a little phosphate in the hill, one row being left without any manure, which grew less vigorously, and was of a poorer quality when gathered.

On the eleven rows I put four quarts of phosphate and harvested about fifteen bushels of ears, while on the other row I only got one bushel.

Conclusions.—Either of these manures may be used with profit, for corn. The phosphate is the best for corn, as it brings it forward early, but the guano is the most lasting, and more apt to burn the seed.

In July a piece of mowing land was clipped and turned over and sowed with buckwheat, with a light dressing of guano and Paris. A great crop was the result.

Plaster of Paris.—Two years ago I bought twenty acres of land, which had been cleared ten years; a part had been seeded and the rest was full of brakes, brush, and wild grass. On this last part I sowed 1,500 pounds of Paris. The cows did not trouble this part until the other had become very short, and then but little. In October I noticed that it was full of clover roots, except here and there a place where it had been passed over. Last spring the remainder was sowed in the same way, with a like result. During the summer the cows always fed the brashy part of the pasture first, that being full of white honeysuckle, while on the best part it was just putting forth its roots.

This piece of land is on a steep side-hill and cannot be tilled. I want to manure it, but am at loss to know whether to use the guano or the phosphate. From my own observation I should be led to use the guano, but from others, the phosphate. Here it is almost spring, and I am still undecided. Cannot some of your numerous readers come forward and help a poor doctor out of this quandary. Yours, L. W. CURTIS. *Southbridge, Mass., Feb. 8, 1854.*

Cheap Cisterns.

MR. TUCKER—Within three years I have built four cisterns. The first held 25 barrels, and of course was a small one, for it was only an experiment, and cost me six dollars. Two men came along, and offered to leave me a good durable cistern if I would show them the spot and pay them six dollars, and it should hold 25 barrels. I showed them the place, and told them to go to work. They dug the hole larger at the top than bottom, and shaped somewhat like a stone crock, and plastered right on to the ground. It stood well, but the second winter was a tough one, and the cistern in rather an exposed place, and the water froze in it pretty hard. When the frost came out in the spring it caved in, and was lost entirely.

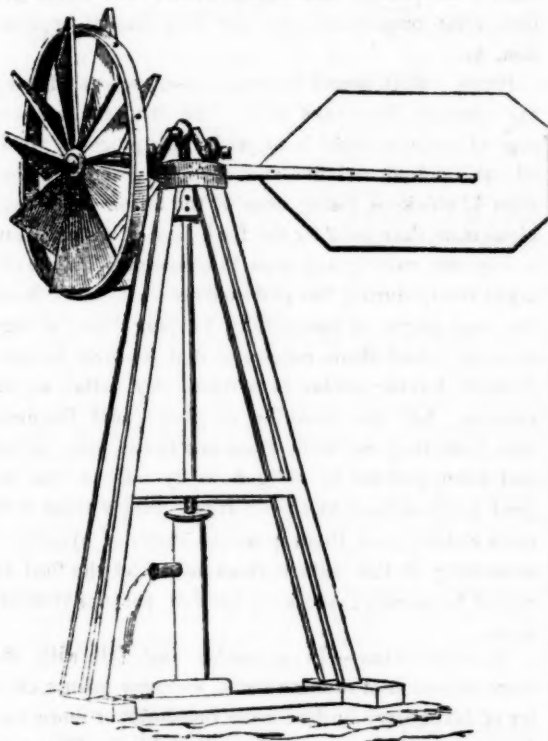
The last one I built myself, to hold 70 barrels, and in a less exposed place. I dug it shaped like the other, and laid the bottom over with brick, laid in water lime cement, and plastered over the brick. The sides I plastered back of the brick as fast as I laid them, but did not plaster on the brick, and set the brick up and down so that no cement came to the water but what was between the bricks and over the bottom. I thus laid one layer above another until I came to the top of the hole; then laid four joists across, and sound oak plank upon them, leaving an eighteen inch square hole on one side, and inserted a curb—then banked up high with dirt around the curb and over the plank.

Now, sir, let me know through your invaluable paper a better or more durable mode of building a cistern. JAMES H. MATTISON. *Oberlin, Ohio.*

Wind Power for Farm Purposes.

A correspondent in Connecticut, wishes to avail himself of some kind of stationary power for the various purposes of the farm, and having no other at hand, would like to know if wind may not be used to advantage; the mode of constructing the apparatus; how great a power may be obtained; and the cost of erection.

This subject is one eminently deserving inquiry, and is worthy of the attention of every farmer, for no other power may be so universally used. Water is at the command of a very few only; steam is costly and requires skilful management; but wind is every where accessible, wind-privileges cost nothing, and a machine through which its force may be exerted can be made at quite a moderate expense. It cannot be used so well for the heavier operations of thrashing grain or sawing wood; but may be applied to great advantage in cutting straw, slicing roots, churning, turning grindstone, and especially to pumping water, all of which, although laborious, require but a moderate and continued force. It has succeeded well for these purposes in actual practice, and there need be no difficulty in any case if properly applied.



The accompanying figure represents a contrivance for the purpose of working a pump. It consists of a simple pyramidal frame, made of four pieces of timber, the top of which is furnished with a circular piece of strong, very thick plank, made of the hardest wood, and pinned fast to the upper end of the timber; or still better, small tenons of these timbers should pass through this circular plank. It may be advisable to face this plank with a cast iron or thick sheet iron plate. A large hole is made through the center, for the passage of the pump-rod, and for securing another strong circular piece of wood above it. The upper

piece is made so as to turn freely in a horizontal direction, and is secured to the lower by means of several iron plates or bars, which pass down and clasp the under side of the lower or fixed wooden circle. To the movable circle a crank is attached, as the figure represents; and to the outer end of this crank the windmill is fixed. On the opposite side of the movable circle is fastened a vane large enough to keep the windmill always toward the wind. The crank will work the pump-rod, no matter in what direction the wind may blow, and the machine thus regulates itself. It is scarcely needful to remark that the faces of the circles should be kept greased, that the vane may turn freely.

The power of such a contrivance as this will as a matter of course depend entirely on the size of the wheel and the strength of the wind. The pressure of what is usually termed a "brisk wind," varies from one to three pounds on a square foot; and as a general or average estimate, a wheel four feet in diameter with such a wind, will perform the labor of a man. Even with a light breeze, the pump will be set in motion, and will continue to raise water at a moderate rate. The cost of such a contrivance will vary from twenty to fifty dollars, according to its size and the perfection of the work.

In all windmills, it is important that the sails or fans have the right degree of inclination to the direction of the wind. If they were to remain *motionless*, the angle would be different from that needed in actual use. They should more nearly *face* the wind; and as the ends of the sails sweep round through a greater distance and faster, these extremities should present a flatter surface than the parts nearer the center, (the sails curving for this purpose,) in all windmills of much size. Scientific mechanics give the following as the proper angle of inclination to the line of the wind's motion; 68 degrees for the part nearest the center, 72 for the middle, and 83 for the tips. This may be of use to those who wish to get as much work out of the wind as they can.

Unloaded windmills, or those which perform no work, move faster at the extremities than the wind itself, in consequence of its pressure on the inner portions of the sails. In order to work most effectively, the work put upon them should run them about one-third slower, or with the ends about equal to the wind's motion.

A wind which blows 25 miles an hour, and presses three pounds on a square foot, is about as strong as it is safe to run a windmill in; and we are not aware of any contrivance to regulate them in stronger gales. But we would propose for this purpose to have the sails turn on pivots at their ends, and a little out of their centers. A spring would preserve the proper angle of inclination, but a high wind would press upon these springs, turning the sails more edgewise towards its direction, and lessening its power upon them. When intended for in-door work, it should be placed on the *roof* of the building, so as to get the wind from every direction without impediment, and that the working

rod may run directly down and perform the necessary work.

We have already spoken of the peculiar fitness of wind for pumping water, which is in the great majority of instances obtained from wells, and to several other purposes where moderate force is needed. There is no doubt however, that by means of a heavy fly-wheel, a power might be accumulated sufficient for cutting wood with a circular saw, which might be attended by a single hand, and during strong winds, save the severe labor of the hand-saw.

On a future occasion we intend to furnish a simpler, cheaper, and perhaps better, but less compact plan for wind-power.

Laborer's Cottages.

EDS. CO. GENT. AND CULT.—Being about to undertake a small farm of 16 acres, and needing a hired man, I seized with avidity your idea of a small cottage for \$250. But a carpenter tells me that nothing but a *shantee* can be built for less than double that amount. As I am ignorant in this matter, I am very desirous for your directions as to size, &c., and will be greatly obliged by such information in your next number as would enable me to erect a dwelling for my man and his family. CIT.

Carpenters, who have been accustomed to build "gentlemen's" houses only, can hardly appreciate the simpler and cheaper wants of such men as labor by the day or month. A costly edifice for such as these, would be what they do not want, and what would be unprofitable for their employers. We speak from actual personal experience when we say that houses *better* than such men generally are able to rent or provide for themselves, have been erected for a sum considerably less than \$250, containing three rooms below and one above stairs. We will here give a very simple detail of the mode of erection, leaving for a future occasion plans and more particular directions.

The frame consisted of heavy scantling plates, supported by perpendicular plank fastened with very large nails. The plank should be about an inch and a half thick, every piece being about of equal width, fitting closely at the edges, but neither planed nor matched. After the building is enclosed with these vertical pieces of plank, vertical strips of inch board about three inches wide are nailed over the joints between the plank, forming a neat battened exterior. Similar strips are then nailed on inside, and on these the lathing is placed for plastering. In other respects the house is finished in the ordinary way. The outside of the house being left rough or unplanned, receives two coats of the best lime whitewash, the color of which may be softened by a small portion of venetian red, umber, or ochre; and a repetition of a coat once in two years will keep up the good appearance, and preserve the wood from decay nearly as well as paint. Such a house will be warmer and more durable than the common studded frame and horizontal clap-boarding. We have actually built a neat cottage in this way, with four rooms, for \$150, when lumber was rather cheap. It consisted of a central portion 15 feet square, with a chamber overhead, and a wing on each side 11 feet

square for kitchen and bed-room, the wings bracing the main building, and thus needing but little timber for the frame. The eaves projected a foot, and were supported by neat brackets. The windows had projecting caps or hoods. Planted around with roses and other shrubbery, and flanked with evergreens, it presented a very neat and attractive appearance.

Liquid Manure—Hens—Blackberries.

EDS. COUNTRY GENTLEMAN—Of the few experiments I have been able to make with manures, I find none more successful, taking expense, saving of labor and results into view, than those which can be used in a liquid state. Its effect is very good on growing corn, either sprinkled all over or poured on to the roots. The kind I used was from the hen-house, about a quart to a tub of water. Almost any kind, in a liquid state, does well on fruit trees, poured on the ground round the trunk, or more effectually into a trench near the extremity of the roots; but with so limited an experience it becomes me better to recommend experiments to others than to go further into details myself, and I hope some of your readers will follow out these hints the coming season, if they are deemed of sufficient consequence, and let us know what kinds are best, what proportions, and the best time of application, &c.

HENS.—With hens I have had good success. I keep the common barn-yard fowl. The first year, an average of seven or eight hens, with their progeny, yielded one hundred and five and one half dozen eggs, besides 42 chickens, losing none of the latter. The eggs alone more than paid for the feed, most of which I had to buy, not raising any corn that season. They have layed freely during the past cold weather, and I think the true secret of successfully keeping hens, of any kind, is to feed them regularly, and *let them be comfortable*, having access to a warm dry cellar, at all seasons. Let the roosts be so placed, and the nests also, that they can walk from one to the other, or up and down, and not be obliged to fly. Have due regard to cleanliness and ventilation; supply them with fresh water; give them pounded shells of oysters, or something of this nature, constantly; let the food be varied frequently; and keep but few, perhaps from six to ten.

BLACKBERRIES—In a ramble last fall with the boys, in search of autumn fruits, we came upon a cluster of blackberry bushes, some two dozen or more, and I may say they were of the *tallest kind*. The summer's growth measured from *ten to twelve and a half feet in height* from the surface of the ground; the bearing ones equally tall, having very good fruit. One of the bushes which I afterwards transplanted, would pass for a respectable little tree, being about an inch in diameter. S. B. SUMNER. *Grantville, Norfolk co., Mass., Feb. 9, 1854.*

GOOD PIGS.—MR. A. CONVERSE, of Butternutts, Otsego co., recently slaughtered two pigs a few days over nine months old, which weighed 650 lbs.—one of them weighed 348 lbs.

United States Ag. Society.

The annual meeting of this society commenced its session at Washington on the 22d of February; but owing to the unprecedented storm which had delayed the arrival of delegates, no business was transacted on the first day.

THURSDAY, Feb. 23.

The Society was called to order at half-past ten o'clock—Hon. MARSHALL P. WILDER, President, in the chair—W. S. KING, Recording Secretary. About 100 members were present from 19 states.

The President delivered his annual address, which was referred to the executive committee for publication.

On motion of Col. C. B. CALVERT, of Maryland, business committees of three were appointed, to whom were referred the various subjects brought before the meeting.

Mr. DEDERICK, of Albany, New-York, moved that a committee of three members on the subject of Agricultural Machinery be appointed, and to report to the Society. He spoke at some length in explanation of the great importance to the agricultural interest of being placed in possession of the best implements for the prosecution of their labors. The motion prevailed, and Messrs. Dederick, Musgrave, of Ohio, and Mapes were appointed.

Mr. DENTON OFFUTT, of Lexington, Kentucky, moved the appointment of a committee on Animal Physiology, and the general improvement in all respects of domestic animals. It was a subject of high interest and importance.

Mr. CALVERT testified to the influence, to him wonderful, whatever it was in itself, of Mr. Offutt's power over at least one animal, the horse. He had been an eye witness to a scene at the Maryland State Fair, which may be mesmerism, or magnetism, or what not; but Mr. Offutt reduced almost instantaneously a horse noted for vicious propensities, to gentleness and tractability. He warmly seconded the motion of Mr. Offutt.

An invitation from Mr. GLOVER to the society to visit his collection of models of fruits at the Patent Office was then read. The invitation was accepted, and a committee consisting of Messrs. Worthington, Berekman, Warder, Munn and Richards, was appointed to report upon the same.

The President then offered for consideration the contents of two communications confidentially committed to him. One was from Mr. JOEL HITCHCOCK, of St. Lawrence county, New-York, on the subject of a remedy for the potato rot; the other on the subject of a remedy for the devastations of the *curculio* on fruits, by some person whose name did not transpire. The object of the parties seemed to be to get their remedies to be tested by the society through committees of the same, and reports made at the meeting of next year.

The question on the reference of these proposals gave rise to a very animated debate, in which views of very opposite character in respect to the probable value of the alleged discoveries were elicited. They were finally, after a strenuous opposition, referred to the Executive Committee, to test the modes proposed and to report to the next annual meeting of this society.

A committee was appointed to petition Congress to make some arrangement with the government of Peru, by which Guano might be procured at reduced prices.

A communication from Mr. James Pederson, on the subject of introducing the Alpaca or Peruvian sheep into the United States, was then read by Mr. MUNN, of New-York.

At the evening session Professor MAPES, exhibited and explained an improved sub-soil plow invented by himself.

FRIDAY, Feb. 24.

In the absence of the President Hon. JOHN A. KING of New-York, was called to the chair, when Professor Fox, of Michigan, delivered an address on the best means of extending Agricultural Education in the United States, which excited considerable discussion,

during which the PRESIDENT OF THE UNITED STATES rose, and, addressing the chair, thanked him for the intelligence that had been furnished him of the session of the society; spoke in terms of compliment and approval of so much of Prof. Fox's address as he had heard; acknowledged the high interest and importance of the object of the society, and of the questions before it; and said that, while he should be most happy to remain during the interesting proceedings yet to be had, other duties demanded his retirement, and compelled him to bid them good morning.

The question of petitioning Congress to purchase Mount Vernon, for the purpose of making it the site of a national Experimental Farm was discussed by Messrs. TAYLOR, CALVERT, EARLL, BROWN, KING and others without coming to any definite conclusion. At the evening session, on motion of Mr. EARLL, the memorial of the Maryland State Agricultural Society, petitioning Congress to purchase Mount Vernon for an agricultural school, was taken up and read.

Mr. FRENCH, of Massachusetts, advocated the adoption of the resolution. It was carried, and Messrs. Blair, of Maryland, Earl, Brown, King, of New York, and French, of Massachusetts, were appointed a committee to present it to Congress.

Mr. BROWNE, of Pennsylvania, made a report from the committee appointed to investigate Mr. Denton Offutt's system of animal physiology.

Mr. ROBBINS of Ohio, presented a memorial from citizens of Ohio asking the countenance and patronage of the society to a cattle exhibition to be held in September next, in Springfield, Clark county, Ohio, which was referred to the Executive Committee.

Hon. Mr. BENSON presented a resolution, in behalf of Mr. MEACHAM, of Vermont, that a National Exhibition of sheep be held in the course of the year in the State of Vermont, at such time and place as the Agricultural Society of Vermont shall appoint. Carried.

Mr. FINCH, of New-York, proposed that a monument should be erected to the memory of John S. Skinner, the pioneer of American agricultural editors.

Mr. BROWNE, of Pennsylvania, supported the proposed tribute.

A resolution, which recommended a stone in the National Washington Monument, with a suitable inscription, was carried.

Mr. CAUSIN, from the committee to examine and audit the accounts of the Treasurer, reported, complimented their accuracy, and stated a balance of \$3,005 in favor of the society. Of this upwards of one thousand dollars have been contributed at the present meeting.

Mr. BENSON read a bill now before a committee of Congress creating an Agricultural Bureau.

Mr. CALVERT recommended the creation of an Agricultural Department, on an equal footing with the other Departments, the Secretary to have a seat in the Cabinet.

Mr. KING, of New-York, moved that the society adhere to the resolution of the last year, asking for a full department.

We do not find it stated whether this, or any other resolution on the subject, was adopted.

Addresses were delivered by Dr. WARDER, on the Culture of the Grape—by B. P. POORE, on the History of Agriculture, and by Dr. Eddy, on Bees and Bee Culture.

OFFICERS FOR THE ENSUING YEAR.

The officers of the United States Agricultural Society for 1854 are:

President—MARSHALL P. WILDER, of Mass.

Vice-Presidents—19, (one from each State represented.)

Executive Committee—C. B. Calvert, John A. King, A. L. Elwyn, J. D. Weston, B. P. Poore, A. Watts, John Jones, W. S. King.

Cor. and Rec. Secretary—W. S. King, of Boston.

Treasurer—William Selden, of Washington.

**The Culture of Indian Corn,
AND THE WAY TO MAKE MANURE FOR IT.**

Our correspondent, Hon. J. W. COLBURN, of Springfield, (Vt.) received the prizes of his State and County Ag. Societies for the best field of Indian Corn, the last year. The field contained seven and a half acres, and the product averaged *one hundred and five bushels* (56 lbs. to the bushel) per acre. The cobs weighed 12 lbs. per bushel. Mr. C. has sent us the statement which he furnished the Societies, of the manner in which this crop was grown. It is particularly interesting, showing as it does, how he made sufficient manure to enable him to apply it in such abundance to this field. We know that it will be doubted by some whether he acted wisely in manuring so heavily; but if all our farmers will follow his example in the measures he took to increase the amount of his manure, they will have little occasion to send abroad for artificial fertilizers. Mr. COLBURN says:—

The soil of this field is alluvion, and was broken up to the depth of 6 inches, after a coating of manure of 40 loads to each acre, spread broadcast, had been applied in the spring of 1852. The plow used was the Eagle C., turning a flat furrow, and performing its work admirably; and here permit me to digress a moment from the subject, while I say, (and I speak from my own experience,) that in my judgment, there are no plows in existence, taking into account the ease of draft, the depth and thoroughness of their work, that are so accurately and well adapted to an improved cultivation, as the various kinds of the deep tillers of the Eagle Class, manufactured by Ruggles, Nourse & Mason.

This field was planted with corn which soon came up, and the prospects for a good crop were flattering; but as often happens on sward land, the copper head grub or cut worm, made its appearance, and destroyed most of the first, and considerable portion of the 2d planting. I however, harvested about 50 bushels of corn to the acre, and a large quantity of pumpkins.

Being desirous to obtain an extra crop of corn from this field before seeding to grass, in the spring of 1853, I applied, broadcast, 50 ox-cart loads of manure to each acre, making 90 loads to each acre, in the two years. The loads were large, side boards upon the cart body, and would contain 35 bushels potato measure. The manure was in different stages of decomposition; a part of it was from hog yard, fine and rotten, some of it a compost heap, made up of horse and chip manure, leached ashes, rich loam from the ditches on road sides, broken bones, the scrapings of the poultry house, &c., often shoveled over during the summer season, kept dishing upon the tops, on which were daily thrown all the enriching wash from the kitchen and chambers of the dwelling. That portion from hog yard, was made up of turfs from road sides, rich loam, from under stable floors, decaying leaves from the forests, brakes from the pasture, green weeds and thistles, potato vines, the cobs of 800 bushels corn, and all other refuse matter that came to hand.—There were 183 loads of strong manure from these two sources, and after paying for all the labor of putting in material and working it over, the actual value of it when taken out and applied to the soil, left a large balance towards defraying the expense of raising and fattening the swine that helped to make and work it over. I would here remark that I have no swamp or muok bed upon my farm; I have no such mine of wealth to resort to, to swell the manure heaps and enrich my lands; if I had, I believe I should know how to appreciate and use it, but such means as I have at command, I endeavor to make the most of.

The balance of the manure applied to this field of 7 1-2 acres, was made in, and taken out of cattle and sheen yards, without adding any material except refuse

straw which was used freely enough to keep the yards warm and dry, and to absorb the liquid portion of the droppings, horse and cattle stables kept bedded so as to take up and absorb the urine, and the coarse part of corn fodder adds very much to yard manure. This portion was rather coarse, and was applied in its green state, which necessarily required the labor of one man when the plow was running, to brush it into the furrow, that no obstruction to a thorough plowing should exist. It was plowed 10 inches deep, 4 inches under the decayed sward, with a short mould-board plow, breaking and pulverising the soil and mixing the manure with it, which with a thorough after harrowing, left one of the best prepared fields for Indian Corn, that could possibly be obtained.

The planting took place on the 16th of May, with the corn planter, dropping plaster and ashes with the seed, about 6 bushels to the acre, the rows north and south, 4 feet distance, and hills 2 feet. At the first hoeing the stalks we designed to be reduced to 3 in each hill, but in many hills 4 were left. A mixture of ashes and plaster, a single handful to each hill, was then applied, and after the second hoeing, plaster alone, a table spoonful to each hill; the 3d hoeing soon followed, all done with care and neatness, using the cultivator and elevating the earth but slightly around the hills.

The manuring of the year previous, together with the decayed sward, seemed to bring the young corn forward with astonishing rapidity in its earlier stages, and the last manuring with the deep plowing and thorough culture told with powerful effect in maturing the crop.

It was cut up at the bottom in Sept., as the husks began to assume a dry appearance, each man taking 3 rows and setting around every third hill of the center row, which was left standing to support the shuck, a man following with rye-straw, putting a strong band around the shuck above the ears; after standing three weeks the husking commenced and was finished on the 19th of October; making no assortment, as it was all dry and sound.

The sample shown you is no better than the whole will average. It is a mixture of the 8 and 12 rowed varieties, with a small cob and deep flat kernel; and is now grown 8, 10 and 12 rows of kernels upon the cobs, which weigh only 12 lbs. after shelling off 56 lbs. of the kernel. By this method of harvesting it will be seen that the shuck or fodder is not separated; it is set up in shocks of convenient size to be put on to a cart with a hay fork, or it can be husked in the field if the weather is good and the fodder drawn in afterwards. It cures well and is worth more for winter forage than by any other process I have ever tried.

In conclusion, gentlemen, permit me to say, that in my experience of growing this crop for the last 25 years, I cannot resist the conviction that with our soil and climate and the best of preparation and cultivation, not much over 100 bushels to the acre can possibly be obtained. There is no better soil for the production of this valuable grain than the alluvial bottom lands bordering upon the Connecticut River, and yet when I have done my best on these lands, I have oftener fallen short than gone over 100 bushels to the acre. This is a great yield and requires extraordinary effort, with a very favorable season to obtain it. Whenever I see the enormous yield of 130 to 150 bushels to the acre, I cannot but entertain the opinion, that some inaccuracy in the measurement has been made, though perhaps not designedly. I know these remarks are gratuitous and may be deemed impertinent, but they are not designed to particularize or to personalise; they only allude in general terms, to what is thought to be erroneous. J. W. COLBURN. Springfield, Dec. 31, 1853.

LARGE CROP OF ONIONS.—The statement is going the rounds that a Mr. Hammond, of Grand Rapids, Mich., raised, the last season, on one rod of ground, 134 bushels of onions. This is at the rate of 2,160 bushels per acre.

Bone Disease.

MR. TUCKER—I have read the inquiry of A. T. TUTTLE of Enfield, and the answer of Prof. NASH, and the information given is of great importance to farmers on old dairy-worn farms.

The cause of the disease, as the symptoms are described, is confirmed by the observation of farmers in this section; for how can it be otherwise, when the cow takes from the soil, 50 or 60 pounds of bone earth, in her milk and the annual calf, besides the supply for her own frame.

The cure, all things considered, the most profitable, is to dry off the cows immediately, and give them a chance to recruit; then turn into beef. If milking be continued when so reduced as scarcely able to walk about, the cows will not pay the cost of bone meal and extra keeping, as it will take a much longer time, where a change cannot conveniently be made in pasture and winter keeping.

I think soiling sickly cows for the dairy, would certainly be very unprofitable for the farmer, on land where this disease prevails.

The preventive of Prof. NASH would be an effective but rather expensive one on large pastures of cheap worn out land, where it would be impracticable to use the plow; but so much depends on the cost of materials, the distance to the market where they can be obtained, we should try to manage if possible, and it certainly is, to prevent the disease.

I believe the best way consists in changing stock often, and at some distance, where the farming lands are comparatively new; and to keep only cows enough to make dairy for family use, and to keep sheep in their place, and go to raising mutton and wool, for that is good business: and I know sheep will do well on land where this disease is common with cows.

The bone disease has been in this section for years, and is now on different farms in all stages. I do not know of an instance where cows have died with it, unless killed to be put out of misery. I have assisted in skinning and examined the bones of several cows, when I have taken the strongest bones in the carcass, and could break them as easy between the thumb and finger of each hand, as I could a piece of common window glass. Yours, PORTER WALBRIDGE. *Tolland, Ct., Feb'y 27, 1854.*

Best Feed for Milch Cows.

MESSRS. EDITORS—One of your subscribers says he would be glad to know the best plan of feeding milch cows in fall and winter. In the remarks you make on the above, you say that you hope some who have had experience will give you more particular and accurate details, as but little has been ever given to the public on this subject. Willing to contribute my mite to the interest of your Cultivator, I send you my experience in (not making milk) but in feeding cows, so as to get the greatest quantities of good milk at the least cost, for this is the great object in view at present. Before the blight came on the potato, perhaps this tuber was

the most profitable to feed out to cows to get a large quantity of milk, but not of good quality. I knew a man that kept 30 or 40 cows for raising milk for market. He used to raise from three to four thousand bushels of potatoes a year before the blight, to feed to his cows; but it would not do to feed potatoes at present prices.

In answer to the inquiry, I beg leave to present the following, which by experience I have found to give the greatest quantity and best quality of milk:

For every cow, boil half a bushel of turneps; when boiled soft, add 4 quarts of bran, mix well, and let it stand till cool. Give your cow a boiled mess like this once a day, and you will find your milk increase, and the milk does not taste of the turneps as it does when they are fed raw. By adding the bran while the turneps are hot, the bran swells, and you get the full good of it. This I have found to be the best and cheapest way to get the greatest quantity of good milk. C. G. *Swampscott, Mass., Feb. 15, 1854.*

Good Heifers.

MESSRS. EDITORS—I have two heifers, from the milk of which has been made, during three months ending the 23d of Feb. last, 254 lbs. 9 oz. butter. "Abby Folsum," the eldest, will be 4 years old next April, and "Victoria" was 3 years old last Sept. As near as their pedigree can be traced, they are $\frac{1}{2}$ Durham. Their sire is a full blood Durham, and was bred by Mr. HASWELL, of Hoosick, N. Y., and purchased of him by Mr. ELI WRIGHT, of this town, some five or six years since. He has recently been sold to a gentleman in Petersham.

The milk which yielded the above named butter, was placed in a pantry contiguous to the kitchen, and the door separating them kept open most of the time; consequently the milk was warmed most of the time at a temperature far above the freezing point, and but a few pans were frozen during the coldest days. The cows were fed on the best of second crop hay, grown on the interval of Deerfield river, and soil of a sandy loam. The following are the expenses of keeping and the profits arising therefrom:

<i>Cows, to meal-bin and hay-mow,</i>		Dr.
To 24 $\frac{1}{2}$ bushels of meal consumed, consisting of two parts corn to three of oats,.....	\$16 22	
" keeping on hay 92 days,.....	26 13	
" interest on cows at \$50 each,.....	1 50	\$43 85
<i>Contra,</i>		Cr.
By 37 lbs. butter sold at 22c.,.....	\$8 14	
" 217 9-16 lbs. do. do. 20c.,.....	43 51	
" 140 qts. new milk given to calves first 10 days after cows came in, at 2c. per qt.,	2 80	
" new milk used in family, 117 qts., at 2c.,..	2 34	
" skimmed milk fed to calves and pigs,.....	10 00	\$66 79
Giving a balance in favor of cows of \$22,94		

One dropped her calf on the 22d and the other on the 24th of Nov. last. JAMES CHILDS. *Deerfield, Mass., March 2, 1854.*

DOCUMENTARY HISTORY.—We have failed to acknowledge the receipt of a copy of this work in December last, from Hon. H. S. RANDALL, late Secretary of State, for which he will accept our thanks.



FARM HOUSE IN THE ITALIAN STYLE.

A Farm House in the Italian Style.

The late A. J. DOWNING, so remarkable for his common sense and accurate taste in architecture, fell into an error on the character of the dwellings that farmers should provide for themselves. He classed all farmers promiscuously in one mass, as men who had but little to do with beauty or neatness, and as a consequence most of his farm-house designs indicate a degree of homely simplicity, often bordering very closely on the uncouth and awkward. Now, it happens that there is as much diversity in the characters, tastes, and opinions of farmers, as in the motly inhabitants of the far-famed Pulo-Penang of the east. Some farmers, it is true, are as crude, almost, as a horse-thistle, while others are as refined as Count d'Orsay himself. The absurdity of placing three-fourths of all the American people together, consisting of Yankees, Englishmen, Irishmen, Swiss, Germans, French, Dutch and Spanish, with interminable intermixtures of all, and with all grades of cultivation, poetry of thought, and the genius of hard-scrabble and rough-and-tumble, is sufficiently obvious.

Some farmers, "whose only music is the dollar's chink," care for nothing in the shape of rural comfort and taste, and would look upon a bed of flowers as far less ornamental than a sack of grain. We actually heard a driving young farmer declare, after viewing a beautiful garden, that a heavy crop of wheat was the handsomest sight in nature for him! But all are not so; and although the thirst for the tasteful is often undefined and developed in an occasional queer-looking building, yet we would rather see a blunder of this sort sometimes than a cheerless desert. Even two stiff rows of trees in front of a dwelling, look better than a bleak unsheltered mansion. If the thirst only exists, it will not be satisfied with such crudities as these, but will soon lead on to better objects for its satisfaction. To assist this worthy purpose, we shall occasionally furnish some tangible hints on building and planting, in the shape of distinct examples.

The design at the head of this article is intended to

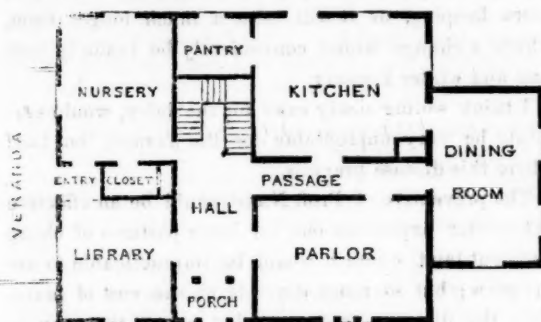


Fig. 1.

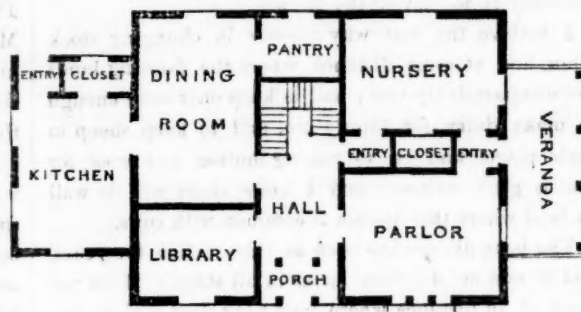


Fig. 2.

exhibit a dwelling expressive of an air of modest and refined neatness, free from any bold or prominent peculiarity of architecture. Its general air is that of the Italian style, presenting the varied outline and freedom from stiffness for which this mode of building is distinguished, but without a rigid adherence to architectural rules. It is intended for an intellectual family in moderate or comfortable circumstances, and either as a farm or suburban residence. Without any attempt at costly ornament, it aims to give a tasteful exterior. A profusion of decoration, or as commonly termed "gingerbread work," is one of the most common faults in our newer country dwellings, much oftener showing a want of architectural taste than its presence. The simple elegance of a statue, with the plainest drapery, is infinitely more pleasing than if bedizened with flashy ornaments, ribbons, poppies, and peacock feathers; and more taste may be shown in the form and proportions of a log dwelling, than Horace Walpole exhibited by

The Norway Fir.

This tree is certainly one of the finest of all the fir tribe, and all things considered, the most valuable. As it is a native of the colder parts of Europe, it is perfectly hardy in any portion of the northern states; it grows with great rapidity, often three or four feet in a year, in ordinary soil, and with no care whatever. It will attain a large size in a very short time, and far outstrips the balsam fir, white spruce, silver fir and other evergreens. It forms one of the finest lawn trees, when standing out alone, and sweeping the ground with its graceful branches; and a dense screen against wintry winds may be made of a plantation of this tree in a very few years.

Like many other trees, the Norway spruce is disposed to run into varieties, which are shown by the different appearances of the foliage. On some trees, the foliage is sparing, erect and rigid; on others, it is profuse, drooping and luxuriant. A mixture of both sorts will give greater variety in a plantation; but in selecting in the nursery, the drooping specimens will always be preferred. We sometimes see rare specimens, of surpassing grace and luxuriance, of which we furnish a fine portrait, which accompanies this article, of a tree standing on the grounds of HUMPHRY HOWLAND, Esq., of Aurora, N. Y.



his splendid erection at Strawberry Hill, which was in fact only a glittering jumble.

The plan (fig. 1) needs but little explanation. The library may be devoted to books, papers, objects of natural history, optical instruments, &c., and would form an interesting resort for the younger members of the family, or for the pursuit of their home studies; or it might be occupied as a business office. We have given modifications of the plan in the accompanying figures. In fig. 1, the nursery and library both open (through a small entry, so as to exclude the direct cold air of winter,) upon the veranda, that the children and young people may enjoy its full benefit. The dining-room, entered through the side passage, is freely accessible from both kitchen and parlor, and may be used as a snug, retired and comfortable living-room. For those who prefer a parlor opening on the veranda, the second plan (fig. 2) is given, the dining-room and veranda of fig. 1 being made to change places with each other, so that the nursery and parlor both open, by means of an entry upon the veranda, this mode of access through an entry being more secure from cold, and better adapted to a house of this character than windows opening as doors. If desired, the veranda may be replaced

with two bed-rooms, for a larger or increasing family, a very common circumstance.

The plan of the second floor is not given, as it very nearly resembles, in its general form, the plan below. It may be made into six bed-rooms, by dividing the space over the kitchen, in the first plan, and over the dining-room in the second, leaving the necessary passages for this purpose. Those who lodge hired men may prefer a separate stairway to the two back rooms, in which case narrow stairs may be placed at one side of the kitchen, directly under which the cellar-stairway may descend. The dairy occupies a separate room in the cellar, with a free access to pure fresh air. The roof over the hall only rises to the eaves of the side walls, thus avoiding the usual leakages of re-entering angles in roofs. As it is, however, more nearly horizontal than the rest, it should be covered with a metallic coating of the same color as the rest of the roof.

This house, built on a moderate scale, or with the four larger rooms about 15 by 17 feet, and ten feet high, perfectly plain in its finish, may be completed for about eighteen hundred dollars. With larger rooms, more massive and durable walls, and higher finish, it might be made to cost three thousand to three thousand five hundred.

Fruit on "Black Swamp" Land.

MR. TUCKER—Will you or some of your correspondents inform me what varieties of the different kinds of fruit are best adapted to what we in Ohio term black swamp land? or such as the black swamp and land bordering on it, in the north part of the state? which perhaps is not excelled in fertility by any land in Ohio or America. Horticultural writers say that one variety will suit one kind of soil, and another another kind. Now I wish to know what varieties are best adapted to the sort of soil I have mentioned, and what would be the most profitable to raise on such a soil, for the New-York market?

The land I have purchased is sufficiently dry for cultivation. JAMES JENKINS. *Port Clinton, Ohio.*

As we are not furnished with a distinct statement of the chief or larger constituents of the soil in question, we cannot give any hints that will be of much value. If the soil abounds largely in vegetable mold, and possesses a high character for fertility, we could recommend only the most productive and moderate growing varieties of the apple; and pears on quince stocks. The following sorts would probably succeed best:—Bullock's Pippin, (which mostly fails in New-York.) Jonathan, Swaar, Newtown Pippin (with lime or ashes added, if necessary,) Esopus Spitzenburgh, Red Canada, Rambo, Belmont, and other varieties of the apple, which improve in flavor on a fertile soil, and not Baldwin, Rhode Island Greening, &c., where the flavor deteriorates on too rich a locality. Among the best market pears, for quince stocks, the Winkfield, Lawrence, Easter Beurré, Beurré Diel, Passe Colmar, Glout Moreau, &c., will be best among the late autumn sorts, which will bear distant transportation.

If the soil alluded to is sufficiently compact and firm, to bear good crops of wheat, corn, potatoes, and other similar farm products, it will doubtless produce the above named fruits; but if of a more spongy or peaty nature, their success will be of a very doubtful nature, while at the same time such localities will be very liable to frost. As a general thing, pears on quince stocks will grow better on peaty soils than any other kinds of fruit.

Soils for Apples.

1st. On what kind of soil will the Swaar apple succeed best? 2d. On what do the Esopus Spitzenburgh? 3d. On what do the Roxbury Russet?

4th. Is the Melon apple equal to any of the above varieties for the desert or domestic use—is it productive—is the fruit fair or imperfect?

My reason for making the above inquiries is, the soil of my orchard varies from a dry gravelly soil to a strong clay loam, and I wish to plant in each kind the variety most suitable for it. Respectfully yours, N. S. ROE.

A very extensive observation is needed to pronounce upon the right kind of soil required for certain varieties of the apple—there are so many causes to influence success, that it is difficult to arrive at a *general rule*, applicable everywhere. Within our own limited experience, however, we have found the Swaar to do much the best on strong, rich, rather heavy soil, and the Roxbury Russet rather best on those of a lighter character. Not much difference has been observed relative to the Esopus Spitzenburgh. The great thing however

for success, and nearly always much more important than all else, is *good, rich, careful cultivation*, on whatever soil the trees may stand. The Melon apple is inferior to none as a table fruit—but it is a slow grower, and only moderately fair and productive.

Grapes and Strawberries.

I propose to start two grape vines this spring, and would like your views as to the best sort, quickest to realize from, and best modes of culture; also the best sorts of strawberries. J. C. PATTEN. *Le Roy, N. Y.*

For ordinary open air culture, our correspondent will find the Isabella to answer his purpose best, and to be the most productive. The seasons in Western New-York are hardly long enough for the Catawba, which is otherwise equally excellent. The Diana is ten days earlier than the Isabella, but a slower grower. The Clinton is early, productive, and vigorous, but not so good as the others we have named. Grapes need a deep, rich, and sufficiently dry or drained soil, which must be kept cultivated; usually any fertile garden soil will answer, but the deeper and richer the finer will be the fruit. Pruning is absolutely necessary, twice a year—for directions, see any of the best works on the culture of fruit.

The best strawberries for the above locality, are Large Early Scarlet, Hovey's Seedling and Burr's New Pine.

Best Currants.

MESSRS. EDITORS—In a late No. you have given some directions about pruning the currant bush. Now I want to know what kinds are best for marketing—the best mode of cultivation, the distance apart, and particularly whether it is best to trim to a single stem or to set them in the old way. D. B. RICHARDS.

The best sorts for market are the Red and White Dutch. The White Grape currant is also a very productive sort. The two former are but little larger than the common red and white sorts, but possess a decided advantage in longer bunches. But if they cannot easily be had in quantity for planting in market grounds, the common sorts with high culture and pruning will do nearly as well, and grow more than triple the ordinary size.

We have not found it best to train the bushes to a single stem, unless it branches out close to the ground. The only advantage of the single stem is ease of clean cultivation. The currants will grow as large and abundantly if the several stems of an ordinary bush are kept well pruned, and under the best cultivation, that is with manuring and a clean mellow soil. All wood over three years old should be kept constantly cut away, and the young and vigorous shoots left—which should be evenly distributed through the bush, and never crowded. A constant succession of these may be more easily kept up on a plant bushing from the ground, than on a single stem a foot high.

Any one who wishes to purchase a fine farm, well stocked with fruit, in a good neighborhood, with the best facilities for markets, is referred to the advertisement of Wm. R. SMITH in this paper.

Hovey's Magazine.

The last number of this standard horticultural journal contains several interesting papers. The leading one is the account of the new seedling grape, raised by E. W. BULL, of Concord, Mass., and known as the *Concord grape*. It was raised from a very early native seedling, supposed to be impregnated by the Catawba. It has now fruited for four years, and we are assured it has proved uniformly excellent; but its most striking and valuable characteristic is its early period of ripening, which is about four weeks before the Isabella, and two weeks before the Diana. An engraved representation is given, of a very showy bunch, which for size and dimensions of berry, is as large as very fine specimens of Black Hamburg. Some of the berries are said to be an inch in diameter. The following is the description given:—"Bunch large, long, neither compact nor loose, handsomely shouldered; berries roundish, large three quarters of an inch in diameter, sometimes measuring an inch; skin thin, very dark, covered with a thick blue bloom; flesh very juicy, nearly or quite free from pulp; flavor rich, saccharine, and sprightly, with much of the delicious aroma of the Catawba; vine, very vigorous, making strong wood; leaves very large, thick, strong nerved, not much lobed, and wooly beneath." We are informed that the raiser of this grape has now 2,000 seedlings in cultivation, from which he hopes to get something valuable.

JOHN FISK ALLEN, of Salem, who stands at the head of American cultivators of the foreign grape, furnishes the following list of "grapes that may be forced, and which will mature their fruit in the least period of time:—Pitmaston White Cluster, Musque Verdal,—these two ripen soonest,—Macready's Early White, Black July. For cold houses, or houses where little heat is used for the main crop, he regards the Black Hamburgh (in its varieties) as the most suitable, and the most generally esteemed,—in common with nearly all cultivators. For late or retarding-houses, where grapes are required that ripen very late, and hang several weeks after ripe, without wilting, the following are regarded as best:—Wortley Hall Seedling, Syrian, West St. Peters, Queen of Nice (moderate bearer), Prince Albert (poor bearer), Ferrar or Black Portugal, Portieu Noir, Muscat of Alexandria in its varieties. The old Black St. Peters and Black Prince are very inferior to the preceding. Zinfindal dries too much.

Coe's Transparent Cherry is highly commended for its productiveness and handsome fruit, and is recommended even for the smallest collections. The committee awarded the Appleton gold medal (value \$40,) to HOVEY & Co., for their new seedling, now proved for five years. This is known as the *Hovey cherry*.

Walker's Seedling Strawberry, and Houghton's Gooseberry, maintain their high character—the latter being the only gooseberry recommended, on account of its freedom from mildew. The best shows of strawberries have been made with Hovey and Boston Pine; and of raspberries, with Knevett's Giant.

Mr. Mathews' Curculio Remedy,

TO BE TESTED IN THE SPRING BY COMMITTEES.

MR. TUCKER—Having received a letter from Hon. JAMES MATHEWS, of Coshocton, Ohio, requesting me to act as an agent for him in the Eastern States, with reference to his curculio remedy, and having given my consent to act in that capacity, I now give notice, that he has communicated said remedy to me, and that I am a duly authorised agent to have committees appointed, and before them, to test, the coming spring, his curculio remedy; with this view I have written to the officers of the Boston Hort. Society, N. Y. St. Ag. Society at Albany, and the Onondaga Ag. Society, requesting that a committee of three persons, shall be appointed by each Society, to examine into the application of this remedy, its cost and facility, as regards application, &c., and report its effects in detail, to the said Societies the coming fall, or when the crops of plums are beyond all danger and perfectly secured.

As Mr. MATHEWS, (as well as myself,) has had numerous applications for state, county and individual rights, the latter ranging in sums from \$10 to \$100, I am instructed by Mr. MATHEWS to say that "he has determined to communicate the discovery to no one, until it has been submitted to and received the favorable report of at least three horticultural committees, composed of men in whose skill and integrity the public will have the utmost confidence, after which he will forthwith give notice, in the horticultural journals, that he is ready to communicate the discovery, with specific, printed instructions, whenever he has received from horticultural committees or individuals offers of rewards which in the aggregate shall amount to such sum as he may think a sufficient remuneration for his trouble, in proportion to the importance or value of such a remedy, and when such rewards are offered, he will forward the instructions to all at the same time. Or should the Legislatures of one or more states deem the discovery of sufficient worth to the citizens of their respective states, so as to make appropriations, that will be satisfactory; in that case he will agree, upon the receipt of such appropriations, to make the remedy public for the benefit of every body." Should not all interested in this subject do something towards a just and full compensation, if the reports of the committees confirm Mr. Mathews' Curculio remedy? A. FAHNESTOCK. *Syracuse, Feb. 7th, 1854.*

The above proposition cannot fail of being satisfactory to the public. The merits of the discovery will be thoroughly tested, and if they shall equal Mr. Mathews' expectations, the Societies having the matter in charge will not fail to make the effort necessary to secure him a suitable reward. The executive committee of the N. Y. State Ag. Society have already appointed a committee on the subject.

STRAWBERRY CULTURE.—A correspondent of the *Country Gentleman* says—"The finest cultivated field strawberries I ever saw, were on ground broke up without manure, and set with strawberries the next year; and the best garden strawberries I ever knew, were manured with black mold from the woods—nothing else."

Strawberries destroyed by Grubs.

By the short description your correspondent, W. P. SARGENT, gives of the grub that destroyed his strawberries, I presume it to be the larva of the cockchafer, (*Scarabæus melolontha*), which is often very destructive to the strawberry; commencing just below the crown of the plant, and eating its way through, after which it betakes itself to the next if not destroyed.

In newly broken ground it is often very plentiful; its presence may easily be detected by the plant becoming unhealthy, when if the soil is a little removed around the plant, may be found close to its work, and if the plant is not too far gone, by its removal the plant will recover.

This pest attacked a newly formed plantation here last summer, but being an old acquaintance, was sought for and destroyed.

The following is its history in Nicholson's Cyclopedia. The eggs are layed in small detached heaps beneath the surface of some clod, and the young when first hatched, are scarcely more than the eighth of an inch long, gradually advancing in their growth, and occasionally shifting their skins, till they arrive at the length of nearly two inches.

At this period they begin to prepare for a change into a chrysalis or pupa, selecting for the purpose some small clod of earth, in which they form a cavity, and after a certain time, divest themselves of their last skin, and immediately appear in the pupa state; in this they continue till the succeeding summer, when the beetle emerges from its retirement, and commits its depredations on the leaves of trees, breeds, and deposits its eggs in a favorable situation, after which its life is of very short duration.

It is said to be two or three years in passing from its first form into that of the perfect insect.

The larva is eagerly sought for and devoured by swine, bats, crows and poultry. EDGAR SANDERS.

Mismanagement with Apple Trees.

Four-fifths of the apple trees that have died in northern New-York during the last twenty years, have died of starvation and improper pruning. There is scarcely a man that has followed husbandry ten years, who does not know that it will not answer to take off more than five or six crops of grain in succession from a piece of land without manure; but he will take off fifteen crops of apples from his orchard in succession without adding any manure, and when the crops begin to grow light, the fruit small, and of inferior quality, he begins to inquire for the cause of such light crops. He asks his neighbor what is the matter with his orchard. He tells him it needs pruning. He being very much afraid of present cost, strives to find a man that will do it cheap. (Most farmers if they are obliged to have a leg cut off, employ the most skillful surgeon they can find, who performs the operation with the sharpest of instruments; but the same men generally employ the cheapest bunglers they can find to cut off the limbs of their apple trees.) He soon finds a cheap bungler, who

knows scarcely enough about pruning to tell a live branch from a dead one when the leaves are off; and to make it come cheaper he hires him by the job, and gives him all the branches to pay for the labor. This induces him to cut off twice as much as he otherwise would. He now commences the work of death upon the orchard, and with an axe or dull saw cuts or haggles off about half of the branches. The next year the apples being much larger, Mr. Unthrifty thinks he has accomplished the great object. The reason why the apples are larger is, the few branches receive the same nutriment that the whole received before. The branches being improperly cut off, the stocks do not heal over, but soon die, rot, and form holes into the trunks of the trees; these holes let in the water, which soon destroys the inside of the trunk; this, together with the want of food, acts so powerfully upon the vitality of the trees, that after vainly struggling for a few years, they give up and die; and who blames them? No man of good sense can.

This man now finds his plans frustrated, and again inquires of his neighbor what has caused the death of his orchard. He tells him it must all be laid to the climate, and the only thing that he can do is to set out a young orchard. He says to himself this will be of no use to me, for I am now sixty years old; but as I have children who are fond of apples, I will set out a few trees to gratify them. The first step he takes is to find where he can get the trees cheapest, without any regard to the manner in which they have been trained. Unthrifty being a man who deals mostly in cheap articles, he employs a man to furnish the trees and set them by the job. This he does for 16 cents a piece. It is frequently the case that people who work by the job slight their work; he is therefore very careful not to dig the holes too deep, nor too large. He digs them about as large as a peck measure; into these small cavities he crams in the roots of the trees, and if he cannot get them all in the hole, he cuts off part of them with his shovel. He then throws back the sods and lumps around the trees, and pronounces them set in first-rate order. He then receives his money and is off in haste. Unthrifty soon expects to see a thrifty orchard, but is greatly disappointed. The trees being improperly trained, and improperly set, one-half of them die the first season. The remainder being sickly, languish for three or four years, during which time one-half of them die. Of all the trees set in this way, not more than one in ten is ever profitable. About this time Mr. Unthrifty dies, leaving his unthrifty orchard for his children, who are not very thankful for the orchard which their father has left them, at the same time thinking him to be nearly as wise as any man in the United States. This is the way many men manage with their orchards, who boast of being enlightened, and who are living in these free and enlightened states of North America. I would like to say more on this subject, but will defer it till a future period, well knowing that the minds of men are much like their stomachs,

If cramm'd too full, they throw out the whole.

But if fed by degrees, they digest all with ease.

Hoosick, Rens. co., N. Y.

ELIHU CROSS.

Market Fruits—Show and Value.

A proof of the higher estimate that is placed on fine show and little merit, in comparison with high merit and plain exterior, by this superficial Yankee nation, is furnished by Dr. Kirtland in his letter to the Northwestern Fruit Convention, published in the Transactions of that body. He sent into market several bushels of the *Beurré Van Marum*—a *third-rate*, but yellow and showy pear; and a quantity of the *Beurré Bosc*, one of the finest flavored of all existing varieties, but with a rusty and unimposing exterior, both being fully ripe. The intelligent people of Cleveland gave very readily from two to three dollars per bushel for the showy *third-rate* pear, but would pay nothing for the rich and melting *Bosc*s. The reason of this is, the great mass of the community, notwithstanding the enormous dissemination of fruit trees of late years, and the increase of pomological knowledge, do not know what good fruit is. But the time will come when they will be wiser than to prefer a pumpkin to a *Seckel* pear, or a handsome sack of saw-dust, to a rough looking bag of superior flour.

Cleanliness and Neatness.

We were once visited by a distinguished pomologist. He was what the Yankees would call "a first-rate clever fellow,"—but, he spit the apple skins of the specimens we were testing, down on the office floor, whenever he had occasion to get rid of them. We carefully gathered them up with our fingers before his eyes, and he took the hint. This is not so bad, however, as the more common practice of squirting a certain brown infusion known as "tobacco spit," on clean floors. Another evil is a great annoyance to decent housewives, viz., the practice of carrying into clean rooms a certain dark brown compound of pudding-like consistency, known by the name of "*mud*," which adheres to boots and shoes in the spring of the year. Every civilized farmer must certainly consider it necessary to provide a good scraper at each of his doors, and a well-made straw, grass, hemp, husk, or sheep-skin mat, within doors. We shall not probably offend any of our numerous subscribers,—for we trust they are all neat, considerate, and civilized men,—when we say that the man who has a filthy door-yard, a filthy barn-yard and animals, and filthy boots within doors, is a boor and a barbarian; it is those who will not read, and whom we consequently cannot hit, that indulge in slovenly habits. On some farms, however, the fault is not confined to the men; for it often happens that the queens of the kitchen, though they may keep their floors and their persons very neatly, have a most unlady-like practice of pouring dirty slops and soap-suds down into puddles close beside the kitchen doors, which in warm weather exhale odors which decidedly eclipse those milder perfumes emitted by the skunk and by *assa-fœtida*. Now, we have heard the remark that dirty people are good natured; if so, we hope every muddy-booted man, and puddle-making housewife, will good naturedly make a mutual bargain that the one shall

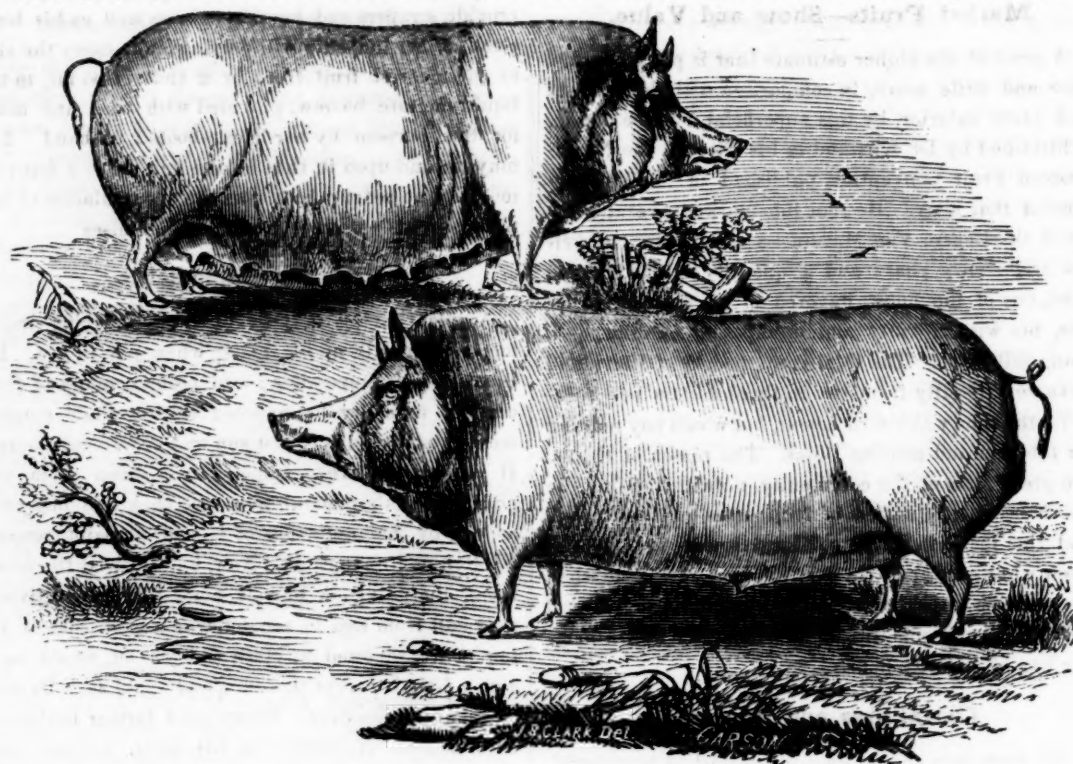
provide scrapers and keep his sole as well as his body clean, if her ladyship will only agree to carry the slop to the nearest fruit trees, or if that is too far, to the liquid manure barrow, provided with eask and cover for this purpose by her clean-booted husband. You may depend upon it, that no one can have a first-rate morality at heart, who allows the accumulation of impurity on his person or around his premises.

Painting Implements.

A great saving may be made by keeping implements constantly under shelter when not in use. But this is nearly impossible; and besides, many of them must of necessity be exposed during their employment to many days of hot sun and occasional showers. It is therefore very important to keep them *well painted*. As a general average, they will last twice as long by the protection of a coat of paint, renewed as often as it is worn off. Now, only look at the economy of the thing—a harrow, horse-rake, or cultivator, may cost from five to ten dollars; a good coat of yellow ochre, renewed as often as worn off, would never cost a fiftieth part of this sum, and would save its small cost many times over. Every good farmer has invested hundreds of dollars in his carts, wagons, sleds, plows, cultivators, rollers, harrows, rakes, wheelbarrows, spades, pitch-forks, ladders, &c., and it will be much better for him to save a few hundreds in the course of ten years, by keeping a pot of paint always at hand, to apply to his washed or cleaned implements on some rainy day, than to try to make the same amount by seeking extra prices for his produce, by overreaching his neighbors, or by refusing a helping hand to the sick and destitute. We have mentioned *yellow ochre*—this is one of the cheapest paints, as well as the most durable, and being of a light color, it will not absorb so much of the hot sun's rays as a darker color, and consequently will not cause heating, warping, and cracking of the wood to which it is applied.

Keeping Eggs.

Our correspondent C. D., of Butternuts, N. Y., objects to our theory respecting the non-adhesion of the yolk to the small end of the egg, when that end is placed downward. He remarks, "I do not know what kind of eggs *fifty-dollar hens* may lay; but I do know that in eggs laid by common hens, the air-bubble is in the other end." We of course admit what every one knows, that when the contents are discharged from the shell, a vacancy between the shell and the skin at the large end is very visible; but this does not prevent the adhesion of the yolk to that part when the large end is placed downwards, and the consequent destruction of the value of the egg. Whether the smaller air-bubble at the other end, or some other cause, prevents the adhesion to that end, we shall not argue; but the fact that the egg keeps well when the small end is down, and that it does not when placed in other positions, is what we have to do with in practice, and to which we wished particularly to call the attention of our egg-keeping readers.



SUFFOLK PIGS.

Suffolk Pigs.

MR. TUCKER—The above are portraits of the justly celebrated Suffolk boar "Prince," and a sow of the same family, delineated from life. The picture is somewhat faulty but not flattering, as hundreds who have seen can testify. In all the good qualities that constitute a perfect animal for producing the most pork, of the best quality, at the least cost, this family stands unrivalled as yet by any in the United States. Their merit in part consists in size, length of quarters, short and lean dished heads; fine, thin and upright ears; prominent eyes, fine tail and limbs, quietness; and above all their perfect adaptation to take fat readily on the most valuable parts. I have slaughtered hogs of this breed whose live and dressed weights differed less than a ninth. No thorough-bred animals of this particular family, have as yet been slaughtered, but enough is known to warrant us in saying they will readily attain 500 lbs. weight at maturity. One litter of eight half breeds, averaged 280 lbs. at 9 months. Two $\frac{1}{2}$ do. attained 390 at 14 months. Prince, in ordinary condition, weighs from 380 to 400 pounds. Although I rather doubt the assertion of their becoming very fleshy on "two chips and a corn cob," still I know they can manufacture pork of an excellent quality from clover and apples. JNO. S. CLARK. Auburn.

A SUFFOLK BOAR.—We understand that Mr. ISAAC STICKNEY, of Boston, Mass., has recently sold a very superior Suffolk Boar, bred by himself, to Mr. CALVIN B. HOIT, of Elba, Genesee co. The introduction of these animals into the state is a matter in which our farmers are much interested; and all who can should avail themselves of the benefit to be derived from their use.

Tumors on the Necks of Cattle.

MESSRS. EDITORS—"A Steuben Subscriber" asks for information respecting a pulsating tumor, on the neck of a young stag, situated about "midway between the butt of the ear and large joint of shoulder." The difficulty is, in all probability, an aneurism of the carotid artery,—a large artery passing up on each side of the neck, carrying the blood from the aorta to the head and brain. An aneurism is "a soft, pulsating tumor arising from the preternatural enlargement or rupture of the coats of an artery." When the coat is only enlarged, it is called *encysted* aneurism, forming a sort of sack of the dilated walls of the vessel. When the coat is ruptured, and the blood spreads about in the cellular tissue, it is called *diffused* aneurism. So much for the difficulty. Now for the cure. I think I may safely say there is none. A common treatment, however, with human subjects is, to make an incision down to the artery, pass a ligature around and tie it. But the utility of such treatment is very doubtful, a large proportion of such operations proving fatal, or leaving the patient in a miserable condition. As many cases of aneurism probably get well spontaneously as by any, or all treatment. Something perhaps, might be effected by keeping the parts wet with some solution or infusion which will contract them; and by a compress which shall act equally on the edges and top of the tumor. The best cure in this case is, in the opinion of the undersigned, a few bushels of meal and roots and the knife of the butcher. M. P. CAVERT. Schenectady, Feb. 13th

The disease for which "A Steuben Subscriber" asks for a remedy, is, probably, *aneurism*—a sack filled

with blood and communicating with an artery—caused by a rupture of one of the coats of the artery, and a consequent expansion of the remaining.

The only sure cure, is to cut down upon the artery and ligate it. By this means the pulsating tumor will be obliterated.

Perhaps the better method would be to carefully prepare him for the butcher, before the rupture of the aneurism and the consequent death of the animal.

MEDICUS.

The Samson Horses.

In answer to the inquiries of W. H. S. of Rochester, Mich., in the last number of the Country Gentleman, about the Samson Horses, I will state that the stallion to which you refer in your note, was purchased by an English farmer by the name of JOHN ROBINSON, residing two miles East of Palmyra, N. Y. His stock was propagated for several years in that vicinity, when the old horse was poisoned, as it was supposed through malice or envy. His stock is very abundant and fine in the vicinity of Palmyra. Wm. P. Nottingham, Esq., of Palmyra, took the first premium at our State Fair I think, two years ago, with one of his colts. As you say he was an animal of great strength, and his stock are almost unequalled in value for cart or farm horses. R. G. P.

The horse we alluded to as imported by Mr. SOTHAM, called *Samson*, was not the one to which our correspondent alludes. When we wrote the note referred to we had forgotten that Mr. ROBINSON's horse was also named *Samson*. This horse was imported by Mr. Robinson himself in 1837, and was selected as one of the best farm horses in Sussex, England. His stock were, and we believe are still, held in very high estimation in the western part of the state.

Mange in Cattle.

MR. TUCKER—Some of my cattle are afflicted by a disease with which I am unacquainted nor can I obtain any information in regard to it. I first observed it upon a heifer, and from her several others have taken it; all of which were in good order and thriving when first attacked.

The first signs of this disease appeared upon the eyebrow in the form of a white scurfy scab; the hair falls and presents a very forbidding sore; these sores, after a little time show themselves upon the different parts of the head and neck; there are no other bad symptoms, which as yet I have been able to discover.

I am anxious to learn the cause and name of this disease and its remedy. You will confer a great favor on me if you can give me the requisite information, or tell me where it can be found. MARK A. PIERCE. China, Wyoming co., N. Y., Feb. 15, 1854.

We are inclined to think the disease alluded to above, is the Mange, though there are several symptoms of this disease not mentioned by Mr. Pierce. Youatt says the first symptom of the mange is a constant itchiness, the animal eagerly rubbing itself against every thing it can get at, and the scurfiness first appearing about the tail, and then spreading in every direction. It is very contagious, and the animals having it, should be immediately separated from the herd.

In the treatment of the Mange, the first step is to remove the scurfiness, which may be done by a hard brush or the currycomb, somewhat lightly applied. "This must be followed," according to Youatt, "with the application of an ointment which appears to have a specific effect on the mange, and which must be well rubbed in with a soft brush, or, what is far better, with the hand, morning and night: there is no danger of the disease being communicated to the person so employed. The ointment must have sulphur as its basis, aided by turpentine, which somewhat irritates the skin, and disposes it to be acted upon by the sulphur; and, to render it still more efficacious, a small portion of mercury must be added. The following will be a safe and very effectual application—there are few cases which will resist its power. Take of flowers of sulphur a pound, common turpentine four ounces, strong mercurial ointment two ounces, and linseed oil a pint. Warm the oil and melt the turpentine in it; when they begin to get cool, add the sulphur, and stir the ingredients well together, and afterwards incorporate the blue ointment with the mass by rubbing them together. Physic should always be administered. Sulphur, in doses of eight ounces every third day, will materially assist in effecting a cure."

Dr. DADD, in his "American Cattle Doctor," recommends the following treatment:

Rid the system of morbid materials with the following:

Powdered sassafras.....	2 ounces.
" charcoal, ..	a handful.
Sulphur,	1 ounce.

Mix, and divide into six parts; one to be given in the feed, night and morning. The daily use of the following wash will then complete the cure, provided proper attention be paid to the diet.

Wash for Mange.

Pyroligneous acid,	4 ounces.
Water,	a pint.

Deep and Shallow Plowing.

There are some, probably one or more of the readers of this paper, who are not yet *thoroughly* convinced of the advantages of deep over shallow plowing. We say not *thoroughly* convinced, for we look to men's actions rather than to their words when we wish to ascertain their thorough convictions, and we observe that many do yet plow shallow, though in words they might admit that it were better to plow deeper. Here is a fact for such farmers. In the south part of Michigan a farm was recently bought of a Frenchman, who had so treated it, that he could no longer get any good crops from it. The last spring that the Frenchman was on this farm he plowed 12 acres and planted it with corn. He plowed this corn-field with a small, worn-out plow, with a pair of small ponies, going only about three inches deep, alleging, as his reason, that the soil beneath had never been stirred, that it was cold and useless, and would, if turned up, spoil his crop. The new purchaser plowed four acres adjoining, eleven inches deep, and planted to corn. The corn on the 12 acres shallow-plowed looked sickly, and much of it died in the course of the summer, while that on the four acres deep-plowed, grew large and of good color, and produced more corn than the 12 acres. O-SERVER.

Information Wanted.

We invite the attention of readers to the following inquiries, and solicit from them the information desired:

RUTA BAGA.—Will you or any of your numerous readers, inform me of the best system of raising ruta bagas, (called Swedes in England,) and the common field turnep, upon a strong, loamy soil? Which is the best method of cultivation, the best time for sowing, the best kind of turneps—how much seed per acre, and which is the best manure, and how much of it to the acre?

Has any one ever sowed Rape (called Cole in England) for feeding sheep in the fall, and the result? Can the seed be procured in this country, and when is the time to sow it? J. R. C.

BIG-HEAD IN HORSES.—I wish to be instructed by some of your numerous readers relative to the disease called the "big-head"—the first symptoms, progress, general treatment, and remedy, if there is any. Is the disease contagious? Will other colts running in the same pasture be likely to have the disease? If any one has had experience in the matter or can give the desired information, I shall certainly be very thankful. Now I hope no one who can oblige, will wait for some one else. Suppose there should be two or three that send in an answer; the more the better, possibly. AN EARNEST READER.

PAINT FOR BARNS, &c.—I intend to paint my barns, out-buildings, &c., in the spring, and shall be greatly obliged if you or some of the readers of your papers will inform me as to the cheapest and most durable paint for a brown or tan color. Do you know any thing of a kind manufactured by Dr. Salisbury? J. H. PARKS.

BREAKING COLTS.—I am about to break a three year old colt, and have never had any experience in the business. Will you or some one of your correspondents, please to give me a few hints upon the subject as soon as convenient? I wish to train the colt to be a horse of all-work—to work on the farm, and also to be used as a carriage and riding horse. How much will it answer to work her the coming summer? What is the best manner of biting? What is the best kind and the most economical food for a young horse? I have a steady old horse with which I intend to work the colt. Information upon the above subjects will doubtless be acceptable to many besides myself. H. N. E. Remsen, Feb. 21, 1854.

ELDERS, CANADA THISTLES, &c.—I wish to inquire as to the best method of destroying the white elders, red raspberry and Canada thistle, on ground that is in no condition to plow, (new pasture.) A SUBSCRIBER.

RED CLOVER AND RAPE.—Will you be so kind as to inform me where I can obtain the large late red clover seed, and the price? Also inform me if the cultivation of rape is profitable in this country. I am told it is very profitable in the British Isles. Where can the seed be obtained, and the price? [You can procure the clover seed of J. BRECK & SON, Boston, at from 12 to 15 cents per lb. Possibly they may supply you with rape seed. We know of no one who cultivates it in this country.—Eds.]

ABORTION.—I have a cow combining many very valuable qualities that has had four calves; the second and fourth she lost by abortion when four or five months gone. Is there any preventive?

Saw-dust placed two or three inches deep under cows in the stable, is an excellent litter to keep them clean. A SUBSCRIBER. Gilsum, N. H.

CIDER MILLS.—You mentioned recently, a wonderful little cider mill, made or exhibited by JOHN JONES, of Little Falls. Have you any personal knowledge of the machine? Can it do one-half as much as there represented? If so, I think there would be a demand for some of them here; for in this place where there

used to be seven mills, there is but one left, and that nearly worn out. Those who were so lucky as to have a few apples last year, had to go six miles to get them made into cider. Tell Mr. Jones to let us know where and how his mills can be had, and not to keep all the good things to himself. LUTHER BUTTERFIELD.—Tyngsboro, Mass. [We know nothing more of the mill, than was there stated.—Eds.]

CHURNING MILK, &c.—Will any one of your numerous subscribers give us an account of churning milk when sweet, and of making the buttermilk into cheese, and its comparative results, as I wish all the information I can get upon the subject. G. A. HANCHET. West Stockholm, N. Y.

VETCHES AND RYE GRASS.—I would like to be informed if the English "Vetch," and the "Italian Rye Grass," are cultivated here—how they have succeeded in this climate, and where they may be had? Answers to the above questions will much oblige a SUBSCRIBER.

WIRE FENCES.—Inquiry.—Not many months ago, the *Cultivator* talked much about wire fences. Time enough has now elapsed for a test of their value, for all the purposes of a fence. Will some of your correspondents who have tried them, give the result. I am very anxious to learn something reliable in reference to them, as I am destitute of rail timber, and lumber is so high in price, that a farmer may carry on his back all the post and board fence his wallet will make. There are hundreds in the same predicament, and reliable information would be a boon to us. C. B. Burr Oak,

EXTIRPATING WILD ONIONS.—INQUIRY.—Pray will you be kind enough to inform the readers of your valuable periodical of the most practical way of eradicating wild onions from the soil. Yours very respectfully, I. S. C. New Brunswick, N. J.

MILL FOR GRINDING FEED.—Will you or some of your readers, inform me if there is any good portable mill for grinding feed for stock, and whether it will grind corn on the cob, the price, &c. A. C.

STABLING COWS.—I saw in the February Cult., a letter from a correspondent, giving a plan for stabling cows so as to keep them out of the manure. He says—"it is simply to confine my cows with stanchions, upon a platform elevated four inches above a gutter immediately behind them." Will he be so kind as to state where and how these stanchions are placed so as to confine the cows upon the platform? This is to me a very important matter, and any information on the subject will be thankfully received. C. V. Pikesville.

A Movable Fence.

EDS. CO. GENT. AND CULT.—As I am a reader of the *Cultivator*, and have been for some years, I take the liberty for the convenience of others, to make known my experience in the use of a movable fence; which I have found of the greatest convenience about my barns, in separating flocks of sheep, &c.

Take two sills four feet long, four inches thick, for one length, thinning the ends, and with a large auger bore two holes in the middle, and put two tough sticks, four feet high, one inch apart, so as to let a board between them. Take a half inch auger and bore the tops, put through an iron bolt with a nut to hold the top of the fence. The board placed between, can be of the length and width convenient for the place it is designed. Two make a good fence; if wanted high, a piece of board can be placed between the sticks, thus raising the upper board. In this way boards are not injured for after use, no nails being used. It can be kept stationary by making a hole in one end of the sill and driving a pin through into the ground. MARK GRIDLEY. Farmington, Ct., Feb. 10, 1854.

Notes for the Month.

E. S. R. BUTLER, dealer in newspapers, magazines, &c., No. 114 Market-street, Wilmington, Del., is Agent for the **COUNTRY GENTLEMAN** and **THE CULTIVATOR**.

OXFORD HOE AND EDGE TOOL COMPANY.—We here received from **JOSEPH G. THORP**, Treasurer of the Company, a specimen of the Solid Shank Cast Steel Hoe, manufactured at Oxford, Chenango co. which received the first premium at the New York Crystal Palace exhibition. **L. Bolles & Co.**, manufacturers, have also received the first premiums at the State Fair, at the Fair of the American Institute and at the County Fair. The sample in our possession has the appearance of being made of the best material, and is of superior workmanship. We are informed that the Manufactory of the Company is very large, and their machinery unsurpassed. They are now making 300 Hoes per day, and their arrangements will soon be completed for making 500 to 600 daily. They also manufacture Chisels, Adzes, and other Edge Tools.

By reference to an advertisement in our columns, it will be seen that **MR. SANFORD HOWARD**, editor of the Boston Cultivator, offers his services to gentlemen for the purchase of Cattle, Horses, Sheep, Swine and Poultry. We know of no gentleman in whose judgment and integrity the public may more confidently rely in the selection of any of the domestic animals. He has been for many years thoroughly conversant with all the improved breeds of cattle, and his extensive acquaintance with all the best breeders in the country will render his services particularly desirable. We have no hesitation in saying that **MR. HOWARD** will discharge such commissions as are entrusted to him to the perfect satisfaction of gentlemen who may employ him.

MANUFACTURE OF AG. IMPLEMENTS.—We learn that **R. L. ALLEN**, proprietor of the well-known agricultural warehouse and seed store, nos. 187 and 189 Water-street, New-York, has just got his new manufactory, upon which he has been engaged for some months past, into operation. It is represented as one of the most complete and perfect establishments of the kind in America. It is fitted up with a powerful steam engine, and with new and improved machinery. About 100 men are now employed in it. The improvement of old, and the rapid increase of new establishments of this kind, affords gratifying evidence of the progress our farmers are making both in improvement and wealth, and we heartily wish their proprietors the success they so richly deserve.

HIGH PRICES FOR SHEEP.—**MR. G. P. GARDNER**, of Schoharie, a few days since purchased of **MR. JOHN T. ANDREW**, of West Cornwall, Conn., a ram and four ewes, of the New Oxfordshire breed, for which we understand he paid the handsome sum of \$300. We recently had the pleasure of examining some very fine

specimens of **MR. ANDREW'S** sheep, at New-York, which attracted much attention by their great weight and fine forms. A writer in the Middlebury (Vt.) Register, states that **W. R. SANFORD**, of Orwell, one of the oldest wool-growers in that state, has just purchased of **WM. REMZLEE**, of Cornwall, thirty-six ewe sheep, for which he paid \$1,800. They were pure bred Spanish Merinoes, descendants from the Atwood stock.

OHIO CATTLE.—Two droves of beef cattle were sold in New-York last week, which are worthy of special notice—one, consisting of 124 head, from the farm of **THOMAS RENWICK**, of Ohio, sold at an average of \$80, producing a total of \$9,920—the other, from the farm of **COL. ELIAS FLORENCE**, of Pickaway county, Ohio, consisting of 102 head, sold for an average of \$108, making \$11,016 for the lot. They were all Durham grades, had been fed two years, and were nearly all four year olds.

IMPORTANT FROM WASHINGTON.—A telegraphic despatch announces that "Professor Mapes exhibited in that city on the 23d ult., some wheat and chess growing on the same head!" The government should take care to secure this wonder, together with a specimen of the toads which selected the "Professor's" best strawberries, and the plows with which he plowed thirty-six inches deep, to be deposited in the Smithsonian Institution for the promotion of Science among mankind.

GREAT CATTLE SHOW IN OHIO.—Extract of a letter from a subscriber at Springfield, Ohio.—"Our Agricultural Society have purchased 10 acres of ground and enclosed it with a good fence, and will erect substantial buildings this summer. We are going to have next September, an Exhibition of Cattle here, free to all throughout the United States. Premiums from \$500 down to \$50, and will amount to some \$7000 in all."

FINE PIGS.—**MR. D. A. BULKLEY**, of Williamstown, Mass., furnishes us the following particulars in relation to some fine pigs recently slaughtered by his neighbors. **J. V. S. CONKLIN** killed five pigs, Dec. 25. They were all of one litter, one week less than 9 months old, weighed respectively 339, 319, 306, 289 and 284 lbs. In January he killed a hog of the same breed, 19 months old, which had no extra feed until September, after which he was fed as much meal, wet up with water, as he would eat, and he weighed 844 lbs. The same day a brother of said hog was killed by **S. WALLEY**, and weighed 649 lbs.

THE CALIFORNIA FARMER.—We have neglected to notice the reception of the first and second numbers of the California Farmer. It is a Weekly Journal, published by **JOHN F. MORSE & Co.**, at San Francisco, and Edited by **JOHN F. MORSE** and **J. L. L. F. WARREN**. The contents give evidence of ability, and we cordially welcome this new co-laborer in agricultural improvement. California is a broad and promising land, and we trust the "Farmer" will live to see it bud and blossom like the rose, and become one of the richest agricultural states of the Union.

CISTERNS FOR BARN.—I wrote to you some two years since for information in regard to leading water in lead pipes for stock, &c.; but owing to great distance and small quantity of water discharged by the spring, we abandoned the idea, and resolved to try cisterns at the barn. We have had one built, 6 feet in diameter and 8½ feet deep, costing for material and mason work about \$16, which I think will pay for itself this winter in time saved (formerly required for driving cattle to water,) and saving of manure, to say nothing of the comfort of cattle in having water in the yard instead of going to a distance to procure it. E. J.

FINE WOOL.—We have received some beautiful samples of fine wool, from Mr. C. LAMKIN of Republic, O., but are unable to estimate a price for it the coming season, as requested. We see no reason to suppose that the prices of fine wool will range lower than last year.

HEAVY PIGS.—Being an attentive reader of the Country Gentleman, I find in its columns the weight of many fine pigs fattened in different sections of country. Pittstown (Rens. co.) has not been unmindful of the pork fattening business. Mr. THOMAS HOAG slaughtered ten pigs, all of one litter, weighing in gross when 40 weeks old, 4,066 lbs, being an average of 406 each. Mr. H. has selected his stock from pure native Americans. A SUBSCRIBER.

EXTENDED CIRCULATION.—In one day last week we received letters ordering copies of our papers, from the Sandwich Islands, the province of New Brunswick, and the Territories of Oregon, Washington and Utah.

COMMON SCHOOLS.—A gentleman in Connecticut, an intelligent thinking farmer says—"My main hope for the American farmer is in our common schools. I trust that before long their character will be so improved as to awaken such a desire for knowledge, that instead of "snoozing" away his evenings, the farmer will be pouring over his books and papers; and in the field be digesting and sifting the thoughts of others, comparing them with such scientific principles as he has made himself acquainted with—in short, that the farmer will be made a man of thought, thirsting for knowledge, and ever ready to learn from all sources."

Potato Rot Prevented.

We learn from the February number of the Michigan Farmer, that a Mr. WEBSTER, of Grand Rapids, in that State, has applied, with apparent success in the way of preventing rot among his potato crop, a composition consisting of one part salt, one part ashes, and two parts plaster. Of this mixture he put into each hill, when planting, a table spoonful, and at the time of hoeing, he scattered broadcast about a bushel of it to each acre. About a bushel and a half was applied, in the whole, to each acre. Some rows were left in the field without any application of this mixture. The potatoes from the ashed and the unashed rows were kept separate, "and very soon those without the application began to rot, while the others remained quite sound and good."

Answers to Inquiries.

NEW OXFORDSHIRE SHEEP.—A Subscriber, Fairton, N. J.—You can procure these sheep of JOHN T. ANDREW, West-Cornwall, Conn., and P. REYBOLD, Delaware City, Delaware. The price varies according to quality—probably from \$20 to \$50 per pair.

BLACK SEA WHEAT.—W. E. T., Lisbon.—We know of no house which imports this wheat for seed. Possibly you may procure imported seed by applying to R. L. ALLEN, New-York, or JOS. BRECK & SON, Boston.

MINOR & HORTON'S PLOW.—H. A.—This plow is manufactured at Peekskill, by the gentlemen whose name it bears. It can be procured we presume at the Ag. Warehouses in this city and New-York.

MOWING MACHINES.—G. A., Armada, Mich., will find his inquiry answered in a late no. of this paper. There are several machines intended to operate both as mowers and reapers, but we are not sufficiently familiar with their work, to enable us to decide as to which is the best.

DRAINING TILE.—J. S., Darlington, C. W. There is much difference in opinion among those who have used tile in this state, as to which is the best, the round or the horse shoe. Our correspondent wishes to drain a heavy clay field. Will Mr. JOHNSTON of Seneca, give us his opinion as to which tile he considers best?

WARTS ON CATTLE.—G. V. Cut them open, and apply blue vitriol in powder. This is said to be a sure cure, and by no means painful. An application of spirits of turpentine is also said to prove effectual.

PORTABLE CIDER MILL.—Your correspondent D. B. RICHARDS, inquires, "which is the best and cheapest Portable Cider Mill, in the end, for a man to buy?" I would unhesitatingly answer, *Kulp's Patent*, from the state of Indiana. Whether the Mill is to be had in New-York, I know not, but it can be had at C. B. Roger's agricultural warehouse, No. 29 Market-street, Philadelphia—Price \$35. I can recommend "Kulp's Patent Portable Combined Cider Mill and Press," from practice, having frequently used it. I may also state that in every instance in which it has come in competition with other portable cider mills, at our state and county fairs it has taken the first premium, as far as I know. F. B. POLEY. Skippackville, Pa.

MANGE IN CATTLE.—In the Co. Gent. of March 2, we published a letter from Mr. PIERCE, asking for information in relation to a disease which first made its appearance in the eye-brows of his cattle. Mr. JOHN LADD, of Braman's Corners, informs us that he had several animals affected in a similar manner; and that one day, having a bottle of "Mustang Linament," he thought he would make a trial of it for this disease. He applied it to the sores, and found it a perfect cure. This Linament can be procured at most drug stores.

S. F. C., Freindsville, Pa.—We have an article waiting insertion, which will answer your inquiries fully.

C. H., Farmington.—We know nothing of the tree about which you inquire.

CHARTER OAK GRAPE.—H. A.—This is a very large and a very poor grape—said, however, to be good for preserves. We should consider 50 cents a high price for it.

DELAWARE—A New-Yorker, who has resided for a year or two past at Wilmington, Delaware, writes us as follows:—"This is a most interesting country, whether reference be had to its agricultural, horticultural, or commercial resources. The soil is of an admirable quality, and I am greatly surprised that the tide of emigration scarcely furnishes a single rill to occupy a region surrounded by cities and traversed by navigable rivers, on the ports of which steamboats and other vessels, touching daily, afford the cheapest mode of transportation. Every thing raised by the farmer secures the highest return, and yet the land is at a very low price."

Hot Houses and Green Houses.

NEW EDITION OF R. B. LEUCHAR'S celebrated Treatise on the Construction, Heating and Ventilation of *Hot Houses, Green Houses, Graperies*, and other *Horticultural Structures*, with practical directions for their management in regard to *Light, Heat and Air*, with numerous engravings.

Published by **JOHN P. JEWETT & CO.**, Boston.
For sale by the trade generally and at seed stores.
March 2—w6t

Great Work on the Horse,

BY DR. GEORGE H. DADD, the celebrated English Veterinary Surgeon. This valuable work, the experience of a life, is now going through the press, and will be published by **JOHN P. JEWETT & Co.**, during the month of April. It will be entitled "**THE MODERN HORSE DOCTOR**," containing practical observations on the nature and treatment of disease and lameness in Horses. Embracing the most recent and approved methods, according to an enlightened system of veterinary therapeutics, to be illustrated with wood Engravings, in the highest style of the Art. To be comprised in one large 12mo. vol. of 400 pages or more, price one dollar.

JOHN P. JEWETT & Co.,
Publishers, Boston.
JEWETT, PROCTOR & WORTHINGTON,
March 16, 1854—w5m1t Cleveland, Ohio.

Genuine Superphosphate of Lime.

THE subscriber has now on hand and is constantly manufacturing, at his works in Middletown, Conn., *Superphosphate of Lime*, which he warrants free from any adulteration, and equal, if not superior, to any in the market. It is made of *bones* prepared in the most approved manner, put up in substantial bags for transportation, and is furnished promptly to order or at the works.

He also manufactures, and has constantly on hand for the market, *Bone Dust* of a superior quality. These fertilizers have been thoroughly tested by careful and experienced agriculturists in this vicinity, and have given general satisfaction. — **ANDREW COE**,
April 1—m3t Middletown, Conn.

The Original Black Hawk

WILL be kept the coming season at his old stand, the stable of **DAVID HILL**, in Bridport, Vermont. His services will be limited to fifty mares. Terms \$50 the season. Those wishing his services should send their names early, as those sending first will be first served.

DAVID HILL, Agent,
Bridport, Vt., April 1—m2t*

Evergreen and Deciduous Trees.

HENRY LITTLE & CO. of Bangor, Maine, will furnish Arbor Vitae, Balsam Fir, Spruce, Hemlock, and other trees, and forward them by steamers or railroads to any part of the United States, at their usual prices.
Jan. 20—w3ms

For Sale or Lease,

5,000 ACRES OF CHOICE FARMING LANDS in Gallatin county, Illinois, in the immediate vicinity of the extensive Mining operations of the Shawnee Coal Company. A cash market for all kinds of farm products at the mines. These lands will be sold or leased to good farmers on accommodating terms.

For particulars, apply to **H. H. CASEY, Sec'y**,
Corner Hanover Square and Pearl street.
New-York, Feb. 1, 1854—m5t

Live Stock Agency.

IN compliance with repeated solicitation, the subscriber offers his services for the purchase of Horses, Cattle, Sheep, Swine and Poultry. His long acquaintance with different breeds and breeders of these animals, gives him superior facilities for procuring the best.

SANFORD HOWARD,
Office of the Boston Cultivator, Boston, Mass.
March 9—w6m3t

Pigs, Fowls, Rabbits and Pigeons.

SUFFOLK AND MIDDLESEX PIGS, Fancy Fowls, Lop-eared Rabbits, and Fancy Pigeons.—The subscriber has now for sale a choice assortment of the above animals, purely bred from imported stock, and warranted genuine. Address

GEO. P. BURNHAM,
Box 22, Post-Office, Boston, Mass.
Boston, March 9, 1854—w5m3t

Devons.

I HAVE two Devon Bulls for sale, one two and the other three past, descended from the Hurlburt stock of Connecticut, of good size and build. **R. S. WATSON**,
Port Kent, Essex co., N. Y.—March 2—w3m2t

Asiatic Fowls!

FOR sale, at auction prices, a choice lot of Asiatic Fowls, consisting of the Brahma Pootra, Chitagon, Grey Shanghai, and Cochon China varieties, all young fowls, and warranted to be of pure blood, and of the large breeds. Per pair, \$10. Two pullets and a cock \$15. Cooped and sent by express, to any part of the United States, promptly, on receipt of the money. The above prices are extremely low, the ordinary charge for the same birds being \$20 to \$30 per pair. **ALFRED E. BEACH**, 86 Nassau-st., N. Y.
Reference—P. T. BARNUM, Esq., President of the National Poultry Society. March 16—w4m1t

Genuine Cochon China Fowls.

25 PAIRS of select buff Cochon China Fowls for sale. They are from 6 to 9 months old and weigh from 14 to 18 pounds per pair. They are pure bred and unsurpassed. The **GENUINE COCHONS** have no superiors. A large illustrative engraving sent to applicants.

EGGS—Cochon China, Brahma Pootra, Golden Spangled Hamburg, Buff and White Shanghai Eggs for sale by the dozen after March 20th. They are all warranted pure. Address, **RODNEY L. ADAMS**, Lyons, N. Y.
March 16—w5m1t

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by Feb. 1—mly. **B. V. FRENCH**, Braintree, Mass.

Eggs for Hatching.

THE subscriber offers for sale, during the coming season, Brahma Pootra Eggs for hatching, at \$4 per dozen, sent to any part of the United States or Canada. Expenses paid to New-York, Albany or Boston.

My stock is inferior to none in the United States. Any one purchasing Eggs of me, that is not pleased with the chicks in the fall, the money will be refunded. Reference will be given if required.

DARIUS GARDNER,
Jan., 1854—m4t Norwich, Conn.

Country Seat on Staten Island.

FOR SALE, a Cottage with 12½ acres of land situated in one of the most healthy parts at the upper end of the Clove Valley, 2½ miles from Vanderbilt's Landing. The Cottage is of brick, in the Gothic style, of a moderate size. About three acres of the ground are in wood, the rest in an unusually high state of culture; good Garden, good Orchard and good pasture land. Much of the ground is thoroughly drained and dug with the spade two feet deep. There are upwards of 700 Fruit trees (more than half being Pears) in the most vigorous growth—a good proportion in bearing. Fruit culture having been the great interest of the present proprietor, it is an orchard of rare excellence and promise. A map with the names of the varieties, warranted true, will be furnished.

The house is surrounded with flowers, shrubs and shade trees. The situation is cool in summer and warm in winter, and it would be difficult to find within so easy access (hourly or half-hourly) of the city, a place so rurally beautiful and so healthy as this. Apply to **ALFRED FIELD**,
March 2—w3m1t* 13 Platt-street, New-York.

Superior Fruit and Ornamental Trees—Cheap.

W. M. R. PRINCE & Co., Flushing, N. Y., in consequence of the Railroad passing through their largest Nursery, will sell 50,000 trees at very reduced prices, comprising Fruit Trees in a bearing state, and Ornamental Trees of the largest size, including the finest Evergreens and all other articles.

Catalogues comprising all the new Chinese and Japan Plants, &c., will be sent to all applicants. Osier Scions of six finest varieties, \$5 per thousand. March 16—wltm1*

An Excellent Opportunity

FOR ENTERPRISING MEN, particularly farmers, to invest funds in a business bringing large interest.

GEO. BOMMER'S PROPOSALS for the formation of a Joint Stock Company, for the purpose of erecting an Establishment in the city of New-York, having for its object:—

1. *The Draining of Sinks*, either by means of air-tight night carts, or by atmospheric pressure. 2. *The conversion of said sink material into manure*, to be called *Improved Poudrette*. 3. *The preparation of Ammoniated Superphosphate of Lime*, a concentrated rich manure, being, in its effects, equal to guano, to be made chiefly of bones, acids, ammonia, &c.

Mr. Bommer, having always in view the farming interest, desires to have the greater part of the shares of the capital stock of said establishment subscribed by farmers; he offers to any farmer or gardener who subscribes for shares, to have manure for his own use at 25 per cent cheaper than the company's market price. Further information on the subject will be found in a pamphlet containing the basis, terms and conditions on which said establishment shall be founded, together with a statement of its fixture expenses, its working costs, and its income. Said pamphlets can be had at the office of this paper, to which place subscriptions for shares can be made or remitted, or sent directly to Mr. Geo. Bommer's office, 74 Greenwich-street, New-York city.

March 23—mlt

GEO. BOMMER.

McCormick's Reaping & Mowing Machine.

I AM now manufacturing 1,500 Reaping and Mowing Machines for 1854, and farmers who want machines are requested to send in their orders early. Last year I had not a supply, although I had 1,500 in the market.

I offer my large experience (both in this country and in Europe) for the last fifteen years or more, in this business, as the safest guarantee the farmer can have in the purchase of a machine of this kind, notwithstanding the pretensions of others, whose limited experience in this business accounts for their large promises.

Deciding it useless to insert long advertisements in the newspapers, I shall be pleased to furnish applicants with my printed circular.

Some important improvements have been made, while the machine will be found as simple and efficient as a machine of the kind can be. The important points that will present themselves in these machines will be, perfect simplicity, ease of repairing, durability, and adaptation to the wants of the farmer as a reaper and mower. I shall continue the use of the wrought iron beam, which will be found very important in mowing, because of the friction upon the ground, and liability to wear and tear a wooden beam or any sheet iron lining that may be used upon it. Another very important advantage which I claim for my combined machine is, that it can be readily changed so as to cut any desired height of stubble, as a reaper or mower, by simply removing three bolts. This principle will be found wanting in other machines, though valuable upon rough ground, or for mowing barley, or lodged oats, timothy seed, clover seed, &c., or where the ground may not be firm, and there be liability in the wheels to sink, and the cutter to be brought in contact with the ground, sand, gravel, &c. With my combined machine, the farmer has also the advantage of a Reel in mowing, which admits of a slow walk to the horses, and is especially valuable when the wind interferes with the successful operation of the machine.

The public are now especially cautioned to beware of Seymour & Morgan's "NEW-YORK REAPER," also made by Warder & Brokaw, of Ohio. These men have been selling my machines, and taking premiums with them, (at the Ohio trial in 1853 and elsewhere,) though under an injunction, the second time, since the late re-issue of my patent in April last, and in addition to a verdict of \$20,000 for past infringements.

Sundry other parties will soon be held to strict account for their infringements, under this patent, which makes them just as liable to be enjoined as Seymour & Morgan.

C. H. MCCORMICK,
By W. M. S. MCCORMICK.

April 1—m2t

Suffolk Pigs,

OF pure blood, for sale by
Feb. 1—mly

B. V. FRENCH,
Braintree, Mass.

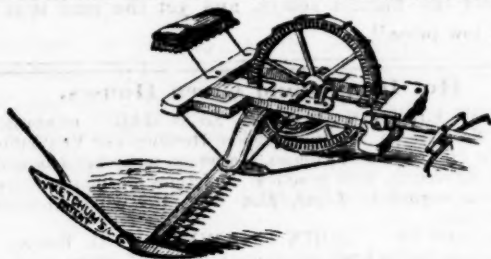
Hallenbeck's Mowing Machine.

THE subscriber having perfected and tested his new and improved Mowing Machine, now offers it to the public for the coming season, confident that it will not fail to give perfect satisfaction. It is simple in construction, light of draft, and perfectly free from clogging. They are built at present for me by Deering & Dederick, corner of Bleecker and Franklin streets, Albany, N. Y. A large number will be made, and are offered to the public, warranted to operate well and to give satisfaction. Persons intending to buy mowing machines will find it to their advantage to examine mine before purchasing.

For further particulars, address the subscriber at Albany, N. Y.

MARTIN HALLENBECK.

Feb. 2—w&mtf

**Ketchum's Improved Mowing Machine,**

WITH ENTIRE CHANGE OF GEAR,

The only Successful Mower now known.

KETCHUM'S IMPROVED MACHINE, which we are building for the harvest of '54, was thoroughly tested last season, and the advantages gained by our change of Gear are in all respects as we designed, viz: *durability, convenience and ease of action*. The shafts now have bearings at both ends, which overcomes all cramping and cutting away of boxing. A counter balance is attached to the crank shaft, which gives it a steady and uniform motion. Each Machine can be thrown out of gear; there is great convenience in getting at each and every nut, all of them being on upper side of the frame; oil cups are attached to all the bearings, which, by the use of a wad of cotton, will hold oil for a long time, as well as protect the bearings from dust, grit, &c.; the finger bar is lined with iron its full width, which protects it from wear.

These and various other additions for strength, durability, &c., makes it the most simple and perfect agricultural implement in use. They weigh about 750 lbs. each, and can easily be carried in a one-horse wagon.

It requires not over ten minutes to get one ready for operation, there being but two bolts, (besides the pole bolts,) to be secured, to have one ready for use. They will cut all kinds of grass, and operate well on uneven or rolling lands, or where there are dead furrows. This Machine took the highest award, with special approbation, at the World's Fair; it also received, during last season, one silver and four gold medals, and various other flattering and substantial testimonials of approval. We have spared neither pains nor money to make this Machine deserving of public favor, and hope to be able the coming season to supply the great and increasing demand.

We take this occasion to caution farmers against buying untried Mowers, if they do (as was the case with many last year) they incur loss, vexation and disappointment.

If any parts are wanted to repair any Machine we have sold, or may hereafter sell, they will be furnished and only manufacturer's cost for the same be charged.

In all cases where extras are wanted, be sure to give us the number of your Machine.

Warranty.—That said Machines are capable of cutting and spreading, with one span of horses and driver, from ten to fifteen acres per day of any kind of grass, and do it as well as is done with a scythe by the best of mowers.

The price of the Mower, with two sets of knives and extras, is \$110 cash, in Buffalo, delivered on board of boat or cars free of charge.

Office and Shop, corner of Chicago-street and Hamburg canal, near the Eastern R. R. Depot, Buffalo, N. Y.

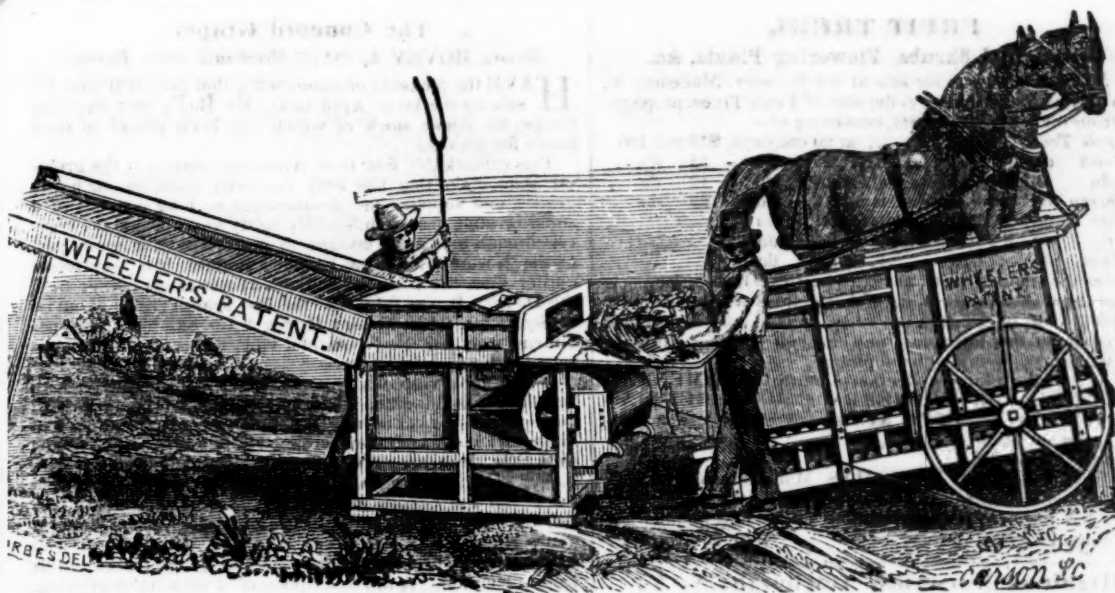
HOWARD & CO., Manufacturers and Proprietors.

The Mower is also manufactured by RUGGLES, NOURSE, MASON & Co., at Worcester, Mass., for the New England States.

By SEYMOUR, MORGAN & Co., Brockport, N. Y., for Illinois, Iowa and Michigan.

By WARDER & BROKAW, Springfield, O., for Ohio and Kentucky.

March 16—w2tm3t



**NEW-YORK STATE AGRICULTURAL WORKS,
BY WHEELER, MELICK & CO., ALBANY, N. Y.**

THE subscribers are now making for the trade of 1854, a much larger number of all articles in their line, than they have in any previous year, and have made several improvements, which will raise their machines still higher in the public estimation.

As the limits of an advertisement will not admit of an explanation of all the advantages of our Machines, and as most of them are so well known as to need no commendation, we will make this statement brief, and for more detailed information, we refer to our printed catalogue, which will be sent by mail, *postage free*, when requested.

As we give our entire attention to the improving and manufacturing of Horse Powers, Threshing Machines, and a few other articles, we feel warranted in assuring the public that they will find each of the following Machines unsurpassed.

Wheeler's Patent Railway Chain Horse Powers.

These Powers, (represented in the above cut.) are unrivaled for driving all kinds of Farmers', Planters', and other Machinery, which admits of being driven by Horse Power. They are made for either one or two horses, and their superior merits, in point of durability, strength and ease of running, are fully established; while their compactness and simplicity, lightness, and greater length and width of treading floor and stall, give them advantages over other Powers, which are highly appreciated by those who have tried them. Several thousands of them are in use, some of which have threshed over 100,000 bushels, and though our present Powers are much improved over the old ones of the same kind, yet the latter are still good. Over 1,000 of them were sold by us and our agents the past season, (a larger number than in any previous year,) thus proving their increasing popularity.

Wheeler's Patent Combined Thresher & Winnow.

This Machine, (also represented in the cut.) is a late invention. It was got out three years ago, after a long series of experiments resulting in a machine which performs the three operations of Threshing, Separating and Winnowing, with as much despatch, and as few hands and horses as are required to thresh and separate only with other machines, and although designed for so complicated work, it is yet a model of simplicity and compactness. The entire running parts are driven by the main belts and one small band. We have no doubt it is the most perfect machine in use for Threshing and Winnowing. Driven by two horses, they thresh and clean from 150 to 200 bushels of wheat, or twice that quantity of oats per day.

From the Valley Farmer of August, 1853.

Wheeler's Combined Thresher and Winnow.

We take pleasure in laying before our readers the following extract from a letter just received by us from a very respectable individual in Cape Girardeau county, Mo., to whom we sold one of these machines about a week ago, with the understanding that if it did not work to his satisfaction he could return it to St. Louis at our expense. It will be recollected that the manufacturers warrant these machines to

thresh and clean from 150 to 200 bushels of wheat per day, or twice that quantity of oats:—

Apple Creek, Mo., July 18, 1853.

MR. F. ABBOTT—Dear Sir:—I have tried my Thresher and Winnow, and it has given entire satisfaction. I have moved the machine one mile, set it up, and threshed 242 bushels of wheat in *one day*, and have threshed 40 bushels an hour. It works finely, and is considered the best machine to thresh and save grain in Southeast Missouri. *It can't go back to St. Louis.* I think I shall thresh from 8,000 to 10,000 bushels of wheat this season. Yours truly, **JAMES F. COLVER.**

Having sold between 300 and 400 of the Winnowers during the past season, we could if space permitted, give many other testimonials to their utility, but the above must suffice.

Wheeler's Overshot Thresher and Separator.

This Machine is also our own invention, and has been in use 13 or 14 years, and its many advantages are appreciated by other Manufacturers, as well as the farming public. Driven by our double Power, it threshes and separates from the straw from 150 to 200 bushels of Wheat, or twice as much Oats, per day. For the Single or One Horse Power we make a smaller Thresher and Separator, which threshes from 75 to 100 bushels of Wheat per day. The small Machine is adapted to moderate sized farms, and as the Single Power is sufficient for sawing wood, churning, cutting stalks, straw, &c., and driving almost every kind of Machine used by Farmers, and is capable, by changing horses and elevating the power, properly, of threshing much faster than we stated above, it is a very popular machine in some sections. We would also call especial attention to our Clover Hullers, Portable Saw Mills, and Stalk and Straw Cutters, either of which are adapted to both our Double and Single Powers.

All our machines are warranted to give entire satisfaction, or they may be returned at the expiration of a reasonable time for trial.

PRICES:

For Double or Two Horse Power, Thresher and Separator, including belts, wrenches, oil-cans, complete,.....	\$160 00
Double Power alone, including belt,.....	120 00
do do without belt,.....	115 00
Double Thresher and Separator, alone,.....	40 00
Single, or One Horse Power, Thresher and Separator, including belts, oil-cans and wrenches, complete,...	128 00
Single Power alone, including belt,.....	90 00
do do without belt,.....	85 00
Single Thresher and Separator, alone,.....	38 00
Clover Hullers,.....	32 00
Straw and Stalk Cutters, for Horse Power,.....	32 00
Circular Saw Mill, with 24 inch Saw,.....	38 00
One Horse Power, without band wheel,.....	80 00
Churn Gearing,.....	13 00
Band Wheel,.....	5 00
Band for Power,.....	5 00
Double Power, with Combined Thresher and Winnow, including belts, wrenches, &c.,.....	245 00
Combined Thresher and Winnow, alone,.....	125 00

Orders are solicited, and will be promptly filled. Address,
WHEELER, MELICK & CO., Albany, N. Y.

FRUIT TREES,

Ornamental Shrubs, Flowering Plants, &c.

J. J. THOMAS has for sale at his Nursery, Macedon, N. Y., a fine and select collection of Fruit Trees, propagated from the best proved sorts, consisting of—

Apple Trees,.....	at 20 cts. each,	\$15 per 100.
Peach do. large,.....	20 do	15 do
do do 1 year from bud,	15 do	12 do
Cherry do with fine heads,	31 do	25 do
Pear do standards,.....	50 do	
do do dwarfs,.....	37 do	
Plum do	37 do	

Besides the smaller fruits, as Strawberries, Grapes, &c.

For those who desire it, careful selections will be made by the proprietor, of the different sorts, so as to afford a regular succession of the finest varieties, through summer, autumn, and winter, without additional charge.

Also, for sale, a large collection of hardy ORNAMENTAL TREES and SHRUBS, HERBACEOUS PERENNIAL FLOWERING PLANTS, &c., among which are a hundred selected sorts of Roses, the finest Spiræas, Peonias, Phloxes, Tulips, &c.

Orders directed "J. J. THOMAS, Macedon, Wayne Co., N. Y.," and accompanied with remittances, will be carefully filled, and the trees or plants packed in the best manner for safe conveyance by railway. mar. 2—w5mt

Highland Nurseries, Newburgh, N. Y.

A. SAUL & CO., in inviting the attention of their patrons and the public in general, to their very extensive collection of FRUIT & ORNAMENTAL TREES, SHRUBS, &c., &c., would respectfully inform them that the stock which they offer for sale the coming spring, is unusually fine, both as regards quality of trees and variety of kinds, &c.

The soil and climate of the Hudson Highlands, have rendered proverbial the success of the trees sent from here, to all parts of the Union, and the accuracy and precision so indispensable in the propagation of fruit trees, for which this establishment has long been celebrated, render errors in nomenclature of rare occurrence.

They have propagated in large quantities, all the leading standard varieties, which are proved best adapted for general cultivation, especially those recommended by the American Pomological Society; as well as all novelties both of native and foreign origin.

To particularize, within the limits of an advertisement, would be impossible; they refer to their general catalogue, a copy of which will be sent to all pre-paid applicants, on inclosing a Post Office Stamp.

The following comprises a portion of their stock, and are all of fine growth, viz:

PEARS—in 400 varieties, both standards on their own stock, for orchard culture; and on Quince for dwarfs, Pyramids and Quenouille, for garden culture.

APPLES—in over 300 varieties, both standards, and dwarfs; also, Cherries, both standards and dwarfs; Plum, Apricot, Peach, Nectarine, and Quince trees in every variety.

GRAPE VINES—(both native and foreign for vineries.) Gooseberries, (50 best Lancaster varieties.) Currants, Raspberry and Strawberry plants of all leading and known kinds, together with Seakale plants, Asparagus and Rhubarb roots, &c., &c.

ORNAMENTAL TREES, Shrubs and Vines, both deciduous and evergreen, suitable for street and lawn planting, embracing all the new and rare Conifers, Weeping trees, and Shrubs of recent introduction.

ROSES—in every variety, including Hybrid Perpetual, Hybrid Bourbon, Hybrid China and Hybrid Damask; Prairie, Boursalt, Ayrshire, and other climbing and garden varieties, as well as the more tender; Tea, China, Bengal, Bourbon, and Noisette kinds.

HERBACEOUS PLANTS.—A large collection of Peonias, Phloxes, Campanula, Penstemon, Oenothera, &c., &c. DAHLIAS and bedding plants, for the parterre and flower garden, in large quantities and variety.

HEDGE PLANTS.—500,000 Osage Orange plants of two years' growth, in three sizes, at \$10, \$8 and \$6 per 1,000. Also, Buckthorn plants, two years' growth, at \$8 per 1,000. Arbor vite for screens, &c., &c.

Dealers and Planters of trees, on a large scale, will be dealt with on the most liberal terms.

Newburgh, Feb. 20, 1854.—Feb. 23—w3t.infma.m2t

Basket Willow.

CUTTINGS of the best European OSIER WILLOW will be furnished by the subscriber at \$3 per thousand. They can be forwarded during the winter to any part of the Union. Orders will meet with prompt attention.

Address C. P. WILLIAMS,
Jan. 1—mtf Albany, N. Y.

The Concord Grape.

Messrs. HOVEY & CO., 7 Merchants' Row, Boston,

HAVE the pleasure of announcing that they will offer for sale on the 1st of April next, Mr. Bull's new Seedling Grape, the whole stock of which has been placed in their hands for disposal.

This remarkably fine new American variety is the greatest acquisition that has ever yet been made to our hardy grapes, and supplies the desideratum so long wanted, of a superior table grape, sufficiently hardy to withstand the coldest climate, and early enough to mature its fruit in any part of the Northern or New-England States. It is four weeks earlier than the Isabella, and nearly two weeks earlier than the Diana. It was fully ripe the last season (1853) about 3d of September, when Messrs. Hovey & Co. exhibited fine specimens from Mr. Bull's original vine, before the Massachusetts Horticultural Society.

It is a most vigorous growing vine, perfectly hardy, with bunches of large size, often weighing a pound, and with large roundish, oval berries, frequently measuring an inch in diameter; color very dark, covered with a thick blue bloom; flesh free from all pulp; flavor very rich and luscious, with a fine sprightly aroma. The foliage is large, broad and thick, and the berries have never been known to mildew, rot, and drop off, under any circumstances during the five years since it has first borne fruit. All good judges who have tasted it, pronounce it far superior to the Isabella in its ripe condition. A full description of it with an engraving, appears in the February number of the Magazine of Horticulture.

Opinions of the Fruit Committee of the Mass. Hort. Society.

1852. Sept. "Seedling Grape, from E. W. Bull, large, handsome and excellent."

1853. Sept. "Fully equal to specimens last year, and proves to be a remarkably early, handsome, and very superior grape."

Five strong one year old vines will be ready for delivery April 1st, at \$5 each, and to the trade at \$40 per dozen. All orders will be executed in the rotation in which they are received.

Messrs. Hovey & Co. will also offer for sale, at the same time, the BOSTON PEAR and HOVEY CHERRY, two new and superior varieties of fruit, particulars of which will be given hereafter. Feb. 23—w2mt

WILLIAM R. PRINCE & CO., FLUSHING, N. Y., are selling off the large stock of Trees from their 50 acre Nursery at reduced prices, the railroad being laid out through it. Extra large and beautiful Fruit and Ornamental Trees of every kind, and also smaller sizes. See full advertisement in Horticulturist. March 2—w1mt

Evergreen and Deciduous Trees.

THE subscriber is prepared to furnish to order, American Arbor Vite, American Larch, or Hackmatack, Silver Fir, Red and Black Spruce, American Hemlock and White Pine.

Also, Elm, Maple, Birch, Beech, Ash, and High Cranberries, at very low prices—6 inches to 6 feet high—faithfully taken up and packed, so as to bear rough handling, and go to any of the Western and Southern States—from Boston, by railroad and boats. For terms, &c., address, post-paid,

March 9—w2mt WM. MANN, Bangor, Me.

HEDGES! HEDGES!—LIVE FENCES,

From the Maclura or Osage Orange.

H. W. PITKIN'S SEEDS AND PLANTS.

I WOULD call the attention of those who may desire to enclose their grounds with this desirable hedge, to my Osage Orange Seed, which has, the past season as heretofore, been gathered and preserved under my immediate care and direction, and can therefore be warranted fresh and genuine.

It is well known that a large portion of the seed usually purchased in market, fails to germinate. This is owing to the vital injury received in process of extraction from the apple, and the careless, slovenly manner of putting up and transporting.

Also on hand a large number of selected plants. They are so packed as to be transported with safety and little expense.

A descriptive pamphlet, containing full directions for planting seed, setting and rearing hedges, &c., mailed to purchasers. Address H. W. PITKIN, Manchester, Conn.

Agents—HOYT & Co., Water-street, New-York; P. B. MINGLE, Philadelphia; JOHN SEARS, Jr., Chicago; BYRUM PITKIN & Co., Louisville; D. REDMOND, Augusta, Ga. Feb. 23—w4tm2

Fertilizers.

GROUND BONE DUST, coarse and fine.
Superphosphate of Lime.
Poudrette of best quality.
Peruvian Guano and Fish Guano,
for sale at *Albany Agricultural Warehouse*, 369 and 371 Broad-
way.
R. H. PEASE.
March 2, 1854—w4m1t Successor to *Emery & Co.*

Fertilizers.

SUPERPHOSPHATE OF LIME, NO. 1, of the best
manufacture; Peruvian Guano, fresh, No. 1; Poudrette;
Plaster of Paris, &c.
R. L. ALLEN.
Feb. 23—m3twewtf 189 & 191 Water-st., New-York.

Fertilizers.

PERUVIAN GUANO, Super-phosphate of Lime of the
following brands, Deburgh, Paterson, and Wood,
Bone Dust—sawings or meal, turnings and ground,
Potash Scrapings, Pulverized Charcoal,
Ground Land Plaster, Sulphuric Acid.
For sale at the State Agricultural Warehouse of
LONGETT & GRIFFIN,
25 Cliff street, New-York.
Jan. 17—w2m—m4t

Fertilizers.

BEST Peruvian Guano—
Super-Phosphate of Lime, "DeBurg's No. 1"—
Poudrette, of the best quality—
Ground Plaster, suitable for agricultural purposes—
Ground Bone, Bone Dust, and Burnt Bone.
Also, Grass Seeds of reliable quality, at the lowest market
price.
GEO. DAVENPORT, 5 Commercial,
Feb. 9, 1854—w&mtf cor. of Chatham st., Boston.

Manures.

PERUVIAN GUANO, Improved Superphosphate of Lime,
Bone Dust, Bone Black, Sulphuric Acid, Potash, Pou-
drette, Plaster of Paris, Charcoal, &c., &c., for sale by
GEO. H. BARR & Co.,
March 1—mtf 53 Cortlandt-street, New-York.

Peruvian Guano.

WE are receiving our supply of Peruvian Guano per
ships Blanchard, Senator and Gray Feather from the
Chincha Islands, and now prepared to make contracts for
the spring supply. As the demand is large we would advise
all who may be in want of this valuable manure to make
early application. Price, \$50 per ton of 2,000 pounds. Be
particular to observe that every bag is branded,

Warranted No. 1 Peruvian Guano.

Imported into the United States by F. BARREDA, BROTHERS,
for the Peruvian Government.

LONGETT & GRIFFIN

State Agricultural Warehouse, No. 25 Cliff-street, New-York.
Oct. 20th—w&mtf.

Poudrette.

THE LODI MANUFACTURING CO. offer their Pou-
drette for sale in lots to suit purchasers, from one barrel
up to 4,000 barrels, at their usual rates, viz. \$1.50 per barrel
for any quantity over seven barrels, delivered on board of
vessels in the city of New-York free of cartage or other ex-
pense. When 200 to 300 barrels are taken, a deduction will
be made from the above price. That this article has stood
the test of 14 years' trial, is proof of its efficacy. It is the
cheapest and best manure for corn ever produced, and it has
the advantage of being useful in small quantities and harm-
less in large. It is a capital manure for peas, strawberries,
&c., &c., and all garden vegetables.

Apply by letter or personally to the *Lodi Manufacturing*
Co., 74 Cortland street, New-York.
Jan. 19—w4m—m4t

Super-Phosphate of Lime.

THIS celebrated fertilizer, where it has been fairly tested
the last year, has been found equal, and in many cases
superior to the best Peruvian guano, in its immediate effect,
and much more permanently beneficial to the land. It is
adapted to any soil in which there is a deficiency of phos-
phate, which is often the case. All crops are benefited by its
application. It is composed of ground bones, decomposed
by sulphuric acid, to which is added a due proportion of Pe-
ruvian guano, sulphate of ammonia, &c.

For sale, with full directions for use, in bags of 150 pounds
each. No charge for package. All bags will be branded
"C. B. DeBurg, No. 1 Super-Phosphate of Lime."

GEO. DAVENPORT, Ag't for manufacturer,
5 Commercial, cor. of Chatham st., Boston.

Feb. 16, 1854—w&mtf

Ground Bone.

THE subscribers are now prepared to furnish Bone Dust
by the barrel or ton in its pure and most efficient state,
ground to any desired fineness. GEO. H. BARR & Co.,
March 1—mtf 53 Cortlandt-street, New-York.

Superphosphate.

NO expense has been spared in the combination of this
most fertilizing manure, which contains the natural pro-
perties of plants. It is superior to most of the articles offer-
ed for sale under the same name, and is inferior to none,
although sold at a much lower price. It is put up in bags, at
\$40 per ton, of 2,000 lbs., cash.

Office of the New-York Superphosphate Manufacturing
Company, No. 159 West-street, New-York.

March 1—m3t VICTOR R. KNOWLES, Agent.

Kentish's Prepared or Artificial Guano.

Twenty Dollars per Ton.

POTATO ROT.—I have used "Kentish's Prepared Guano"
this season on potatoes. My crop was large and all sound.
Where I did not use it, the potatoes were all rotten and
worthless. My neighbors also, who have not used this fer-
tilizer, have not raised a saleable potato this year. I con-
sider it a preventive of Rot.
G. PREAUT.

Westchester Co., N. Y., Sept. 29, 1850.

Extract of a Letter from E. B. Addison.

Alexandria Co., Va., April 22, 1851.

Dr. John H. Bayne, President of Prince George's Co. Ag-
ricultural Society, Maryland, has desired me to inform you
that last spring he used African Guano, Poudrette, Peruvian
Guano, and your prepared Guano on Potatoes. The first two
were distanced, but the result from the Peruvian and yours,
was about equal. He pronounces your Prepared Guano to
be a very excellent article, and esteems it highly.

Richmond Co., N. Y., July 27, 1849.

"I have made use of Kentish's Prepared Guano on pota-
tos, cabbages, cauliflowers, corn and grapes. I found the
result much more satisfactory and the produce much larger
than where I used imported Guano or any other kind of ma-
nure."
EDWARD JENNINGS, Gardener."

It is equally fertilizing on all crops. See the numerous
certificates on this subject in the printed circular to be ob-
tained at
KENTISH & CO'S Depot,

March 1—m3t No. 159 West-st., City of New-York.

North River Agricultural Warehouse and Seed Store.

No. 53 Cortland-Street, New-York,

WHERE may be found a large and complete assortment
of the best and latest improved Agricultural and Horti-
cultural Implements, Field and Garden Seeds, Fruit and Or-
namental Trees, Fertilizers of all kinds, &c., &c.

March 1—mtf GEO. H. BARR & Co.

United States Agricultural Warehouse and Seedstore

No. 197 Water street, near Fulton street, New-York.

MERCHANTS, Planters and Farmers, in want of AGRI-
CULTURAL and HORTICULTURAL IMPLE-
MENTS or SEEDS, for shipping, plantation, farm or garden
purposes, will please call and examine our extensive and su-
perior assortment of goods in the above line, unsurpassed by
any other house in the United States, for finish, material and
workmanship, and of the most approved patterns; all of
which we will sell on as good terms as any other house in
this city.

We have among our assortment the far-famed and une-
qualed EAGLE D. & F. PLOWS, warranted to draw lighter
and do as good work in sod or stubble ground, as any other
Plow to be found in the United States.

We also have the highest premium Straw Cutters, Fan Mills,
Grain Mills, Premium Stalk Cutters, Horse Powers, Thresh-
ers and Separators of different kinds; Ketchum's celebrated
Mowing Machine, unsurpassed; Hussey's Reaping Machine
—also, McCormick's Cotton Gins, Cotton Presses, Hay and
Hide Presses, Brick Machines, Harrows of all kinds, Sugar
Mills for plantation use, Sugar Mills for grocer's use, Hand
Store Trucks of all kinds, Mule Carts, Horse Carts, Farm
Wagons, Wheel Barrows, Coal and Canal Barrows. In
fact we have everything for shipping or using on plantation,
arm or garden.

JOHN MAYHER & CO.

N. B. Guano, Bone Dust, Poudrette, Superphosphate of
Lime, and other fertilisers
Jan 1, 1853—m&wtf

Prouty & Mears' Plow.

A LARGE assortment of these celebrated Plows can be
found at the North River Agricultural Warehouse and
Seed Store, 53 Cortlandt-street, New-York.

March 1—mtf GEO. H. BARR & Co.

Contents of this Number.

Letter on British Agriculture—Deepening the Soil, by Rev. J. A. NASH.....	105
Flax Culture, by OBSERVER.....	107
Tobacco Culture in the Northern States, by S. B. BUCKLEY—Prices of Breadstuffs.....	108
Experiments with Superphosphate of Lime, by F. C. L. HOW to procure Guano for a Wheat Crop, by JOHN R. CHAPMAN—Culture of the Potato.....	109
Bone Sickness in Cows, by Rev. J. A. NASH.....	110
Farm Books—Good Suggestions, by J. G. K.—Pennsylvania S. Ag. Society—Standard Weight of Grains, Culture of Buckwheat, by G. W. DURANT.....	111
Experiments with Guano, Superphosphates, &c., by L. W. CURTIS—Cheap Cisterns, by J. H. MATTISON	112
Wind Power for Farm Purposes.....	113
Laborer's Cottages—Liquid Manure—Hens—Blackberries, by S. B. SUMNER.....	114
United States Ag. Society.....	115
The Culture of Indian Corn and the way to make Manure for it, by J. W. COLBURN.....	116
Bone Disease, by PORTER WALERIDGE—Best Feed for Milch Cows, by C. G.—Good Heifers, by J. CHILDS	117
A Farm House in the Italian Style.....	118
The Norway Fir.....	119
Fruit on "Black Swamp" Land—Soils for Apples—Grapes and Strawberries—Best Currants.....	120
Hovey's Magazine—Mr. Mathews' Curculio Remedy, to be tested in the spring by committee.....	121
Strawberries Destroyed by Grubs, by E. SANDERS—Mismanagement with Apple Trees, by E. CROSS.....	122
Market Fruits—Show and Value—Cleanliness and Neatness—Painting Implements—Keeping Eggs.....	123
Suffolk Pigs, by J. S. CLARK—Tumors on the Necks of Cattle, by MEDICA.....	124
The Samson Horse—Mange in Cattle—Deep and Shallow Plowing, by OBSERVER.....	125
Information Wanted—A Movable Fence, by M. GRIDLEY.....	126
Notes for the Month.....	127
Answers to Inquiries.....	128
ILLUSTRATIONS.	
Wind Power for Farm Purposes.....	115
Farm House in the Italian Style.....	120
The Norway Fir.....	121
Suffolk Pigs.....	126

To Nurserymen.

100,000 Norway Spruce, 5 to 15 inches.
6,000 Silver Fir, 5 to 6 inches.
3,000 English Yews, 4 to 6 inches.
1,000 do 9 to 15 inches.
2,000 Larch, 12 to 15 inches.
4,000 do 6 to 9 inches.
3,000 Scotch Fir, 6 to 9 inches.
1,000 Gooseberries—Best sorts.
1,000 Currants—Ruby Castle.
20,000 American Arborvitae.
20,000 Sweet Briar one year from seed.
50,000 Osage Orange one year.
50,000 Asparagus Roots one and two years.
55 Varieties Strawberries.
20,000 Mountain Ash three to nine feet.

All for sale at the very lowest prices at the Geneva Nursery.
April—m1t W. P. & E. SMITH, Geneva, N. Y.

Osage Orange Seed.

THE Subscribers, in order to meet the rapidly increasing demand for Osage Orange Seed, employed the past winter an agent long engaged in the business to superintend the gathering and preparing the seed expressly for our own trade, now offer for sale 300 bushels of superior Seed, all of which is warranted the growth of 1853. Dealers and nurserymen supplied on reasonable terms.

Also, 3,500 bushels of Kentucky Blue Grass Seed, cleaned in a superior manner by Byram's Patent Seed Mill. The trade supplied at the lowest market rates.

BYRAM, PITKIN & CO.,

Southwestern Seed and Agricultural Warehouse,
March 23—w1tm1t Louisville, Ky.

Every Farmer Should Own

SCHENK'S KITCHEN GARDENER—Price 50 cents.

Breck's Book of Flowers—Price 75 cts.

Cole's Diseases of Animals—Price 50 cts.

Cole's American Fruit Book—Price 50 cts.

New editions of which have just been published by JOHN P. JEWETT & Co., and are for sale at all the Book and Seed Stores.
Boston, March 16, 1854—w8tm1t

New and Improved Plows,

INCLUDING the Deep Tiller, Flat Furrow, Self Sharpener, Centre Draft, Side Hill, Subsoil, Double Mold, Potato, and Cultivator Plow.

Harrows, Rollers, Seed Sowers, Cultivators and a large assortment of all other Agricultural Implements.

R. L. ALLEN.

Feb. 23—m3tweowtf 189 & 191 Water-St. New-York.

Plows! Plows!

PROUTY & MEARS' Centre Draught Plows of all the various sizes. Rich's Iron Beam do do.

Michigan Sod and Subsoil Plow.

Prof. Mapes' Improved Subsoil Plow.

For sale at LONGETT & GRIFFING'S,

March 16—m2t 25 Cliff-street, New-York.

Field and Garden Seeds.

SPRING WHEAT, Barley, Oats, Grass Seeds, Clover, Fresh Ray Grass, Lucern and White Clover just imported. Excelsior Potatoes, a new and improved variety, Belgian Carrot, Sugar Beet, &c.

Garden Seeds of all kinds, including Flower Seeds.

R. L. ALLEN,

Feb. 16—m3tweowtf 189 & 191 Water-st., New-York.

Garden and Field Seeds.

A FULL and complete assortment of new and fresh Garden and Field Seeds, embracing many new and important varieties. Among the assortment of field seeds may be found—

Spring Wheat, several varieties.

Spring Rye, Barley.

Poland and Potato Oats, Buckwheat.

Peas, a large assortment.

Potatoes, choice varieties.

Clover Seed and Timothy Seed.

White Dutch Clover.

Red Top, Blue Grass and Orchard Grass,

with a complete stock of GARDEN and HORTICULTURAL TOOLS, for sale at the Albany Agricultural Warehouse, 369 and 371, Broadway.

R. H. PEASE,

March 9, 1854—w4tm1t Successor to Emery & Co.

Seeds! Seeds!

FIELD AND GARDEN SEEDS, of all the different varieties, at the State Agricultural Warehouse.

LONGETT & GRIFFING,

Feb. 16—w6t—m2t No. 25 Cliff st., New-York.

Early Excelsior Potato.

THIS is a new and very superior sort. They are as early as the June potato, grow above the average size, are mealy and palatable, and have kept better than any other variety planted in this vicinity. The rot has never been known among them.

R. L. ALLEN,

189 and 191 Water-st., New-York.

March 9—w3teow—m2t

Garden Implements.

HEDGE LONG HANDLE AND SLIDING PRUNING Shears; Budding and Edging Knives; Pruning Hatchets, saws and knives; pruning, vine and flower scissors; bill and Milton hooks; lawn and garden rakes; garden scufflers, hoes of great variety, shovels and spades; hand engines, which throw water forty feet or more, syringes and water pots; grafting chisels, tree scrapers, and caterpillar brushes; transplanting trowels, reels; hand plow and cultivator, very useful to work between rows of vegetables, together with a large assortment of other implements too numerous to mention.

R. L. ALLEN,

Feb. 16—m3tweowtf 187 & 191 Water-st., New-York.

THE CULTIVATOR:

A MONTHLY JOURNAL OF

Agriculture, Horticulture, and Domestic Economy.

THE PRICE REDUCED TO 50 CENTS A YEAR.

All subscriptions must commence with the January No and the payments must in all cases accompany the order for the paper.

LUTHER TUCKER,

Publisher, Albany, N. Y.

Single copies, Fifty Cents—Eight copies \$3—any larger number at the same rate.

Postmasters and all friends of agricultural improvement, are respectfully invited to act as agents for THE CULTIVATOR and THE COUNTRY GENTLEMAN.